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# JOURNAL

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U.S. DEPARTMENT OF  
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JOURNAL OF FURTHER EXPLORATIONS IN THE KURU REGION  
AND IN THE KUKUKUKU COUNTRY, EASTERN HIGHLANDS OF EASTERN NEW GUINEA  
AND OF A RETURN TO WEST NEW GUINEA

December 25, 1963 to May 4, 1964

D. Carleton Gajdusek  
"

Study of Child Growth and Development and Disease Patterns in Primitive Cultures  
Laboratory of Central Nervous System Studies  
National Institute of Neurological and Communicative Disorders and Stroke  
Bethesda, Maryland 20205

November 1980

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
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Figure 1.







Figure 2.





Figure 3.





Figure 4.





Figure 5.







Figure 6.





Figure 7.





Figure 8.





Figure 9.







Figure 10.





Figure 11.





Figure 12.





Figure 13.







Figure 14.





Figure 15.

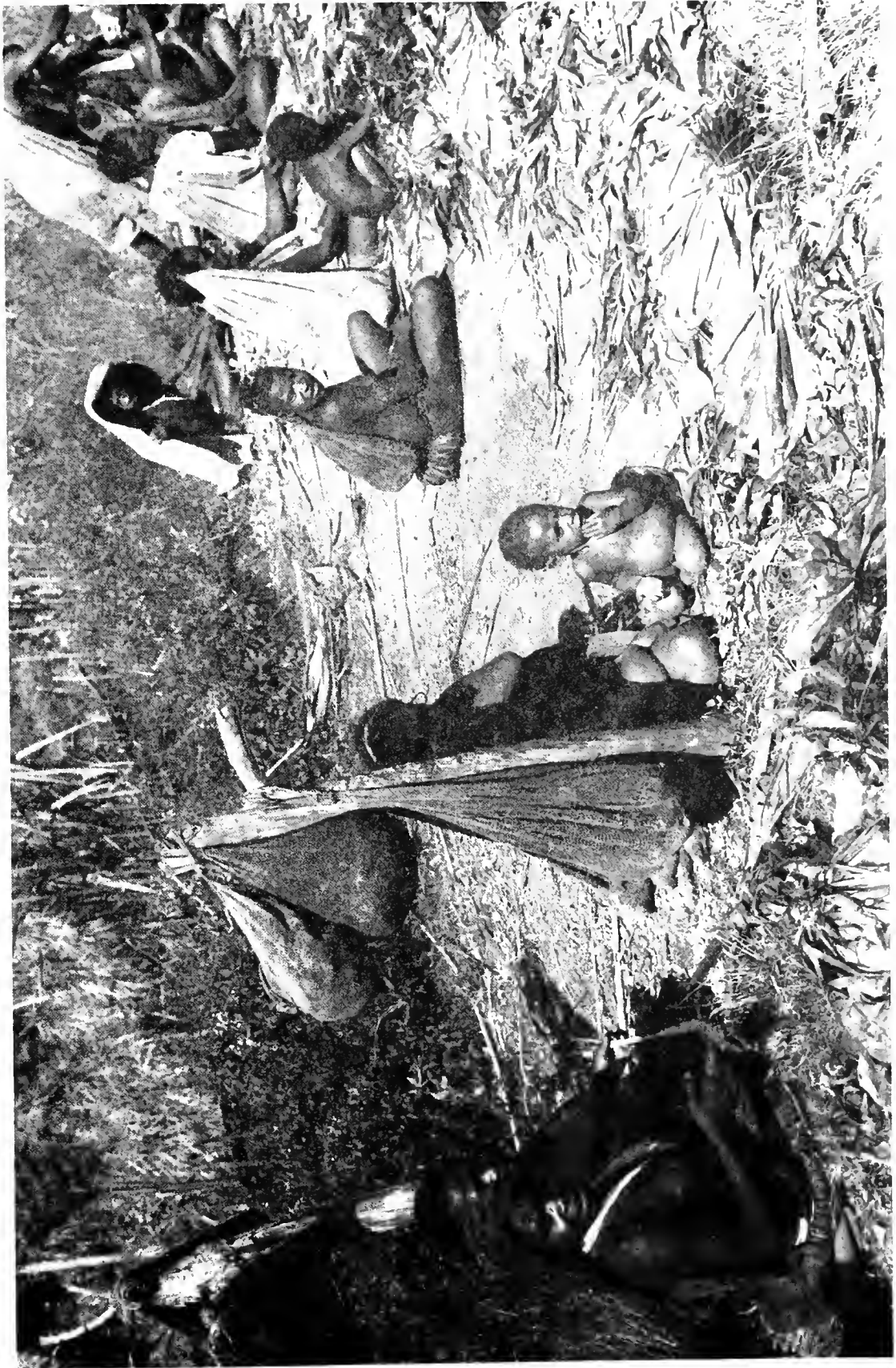




Figure 16.







Figure 17.







Figure 18.





Figure 19.

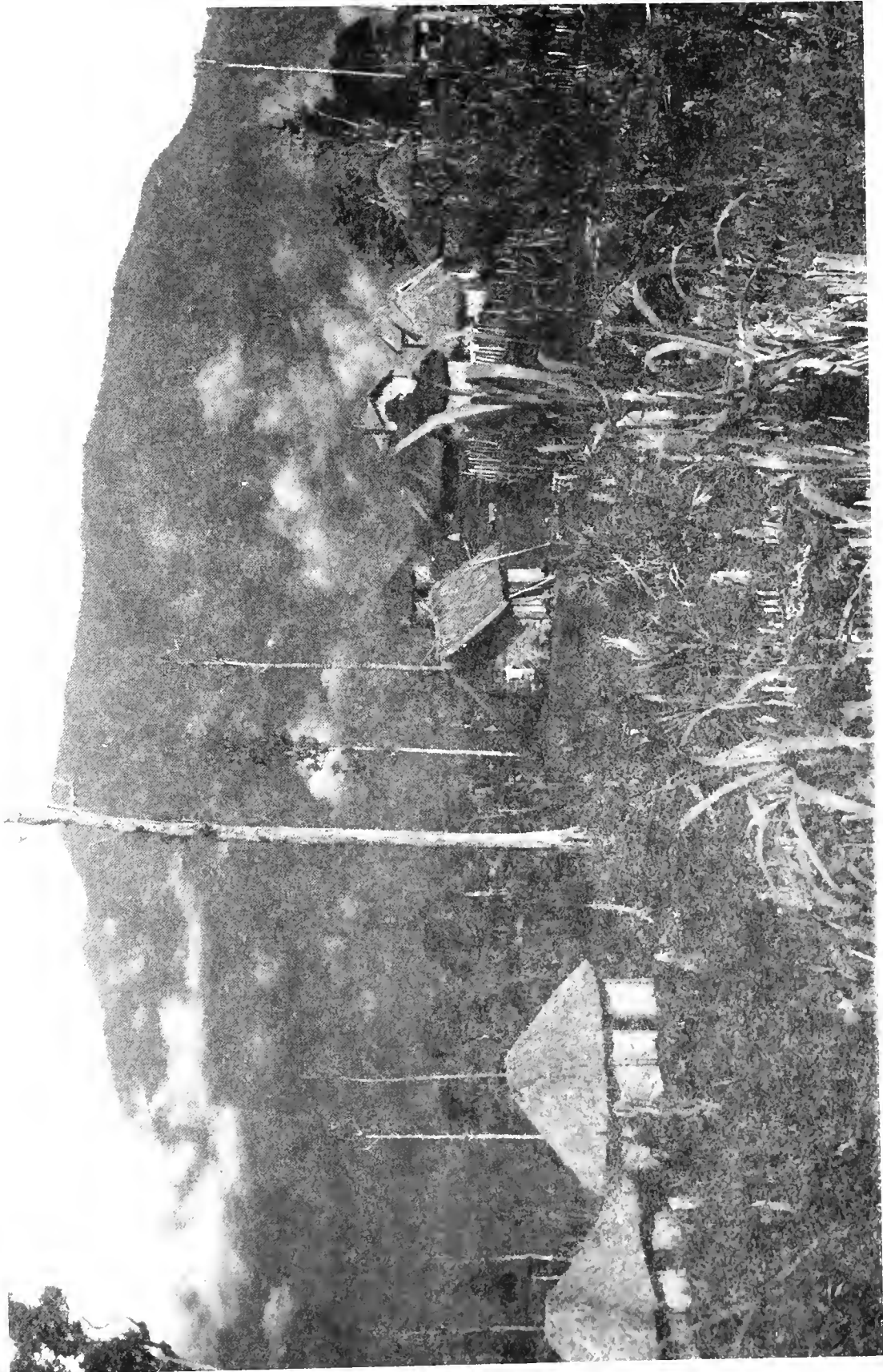




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Figure 21.

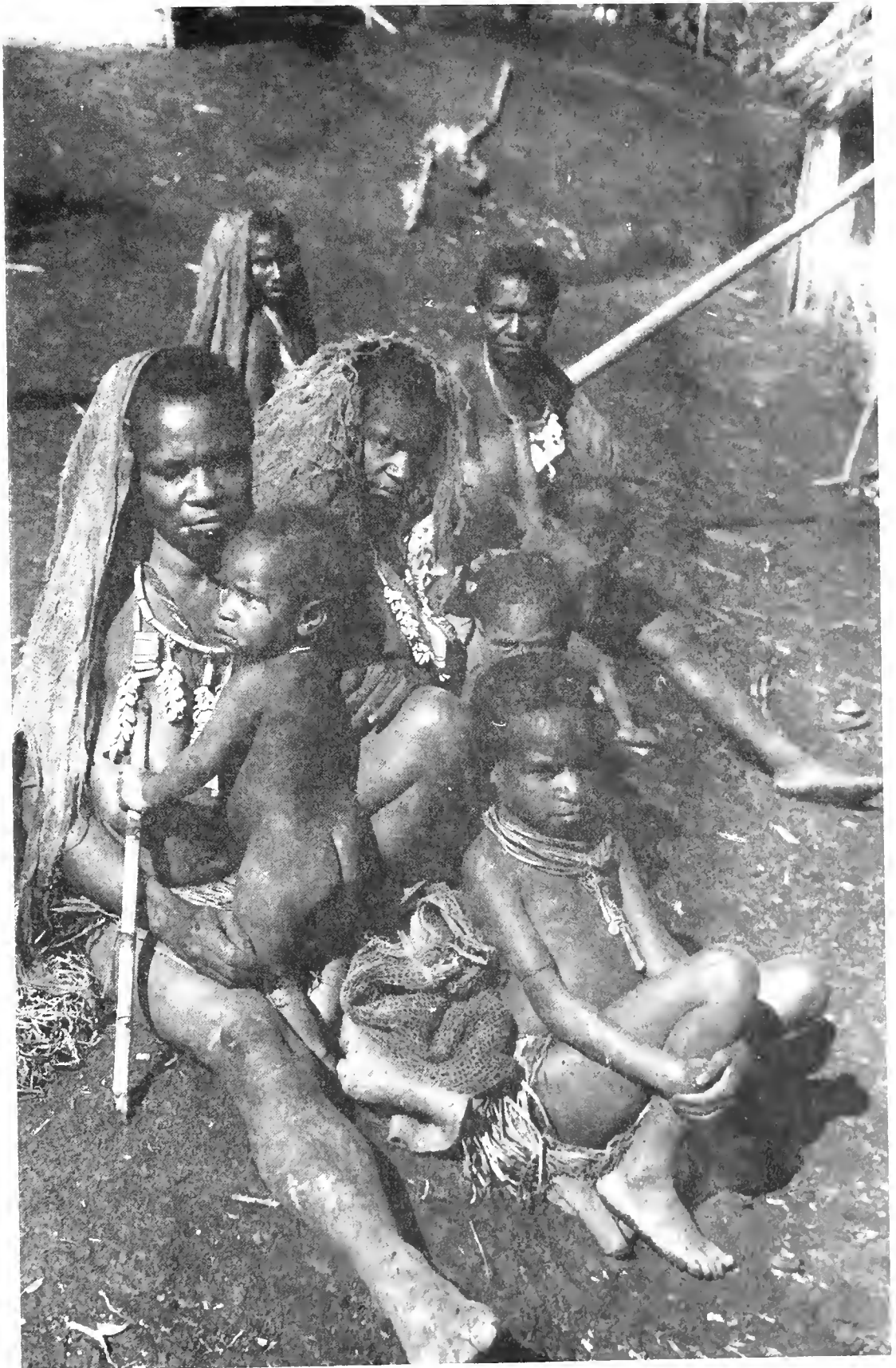






Figure 22





Figure 23.





Figure 24.





Figure 25.







Figure 26.

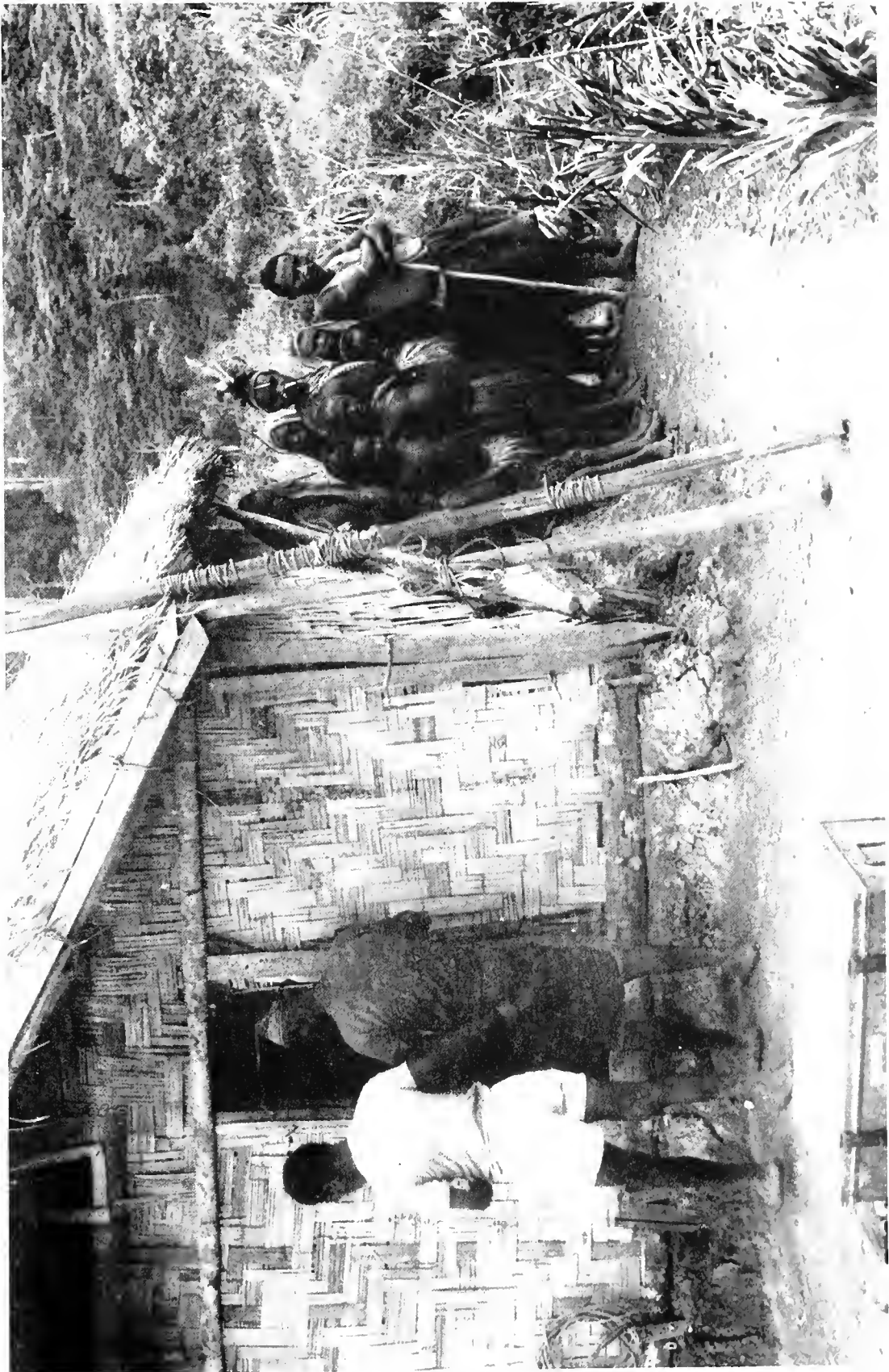




Figure 27.





Figure 28.





Figure 29.







Figure 30.





Figure 31.





Figure 32.





Figure 33.

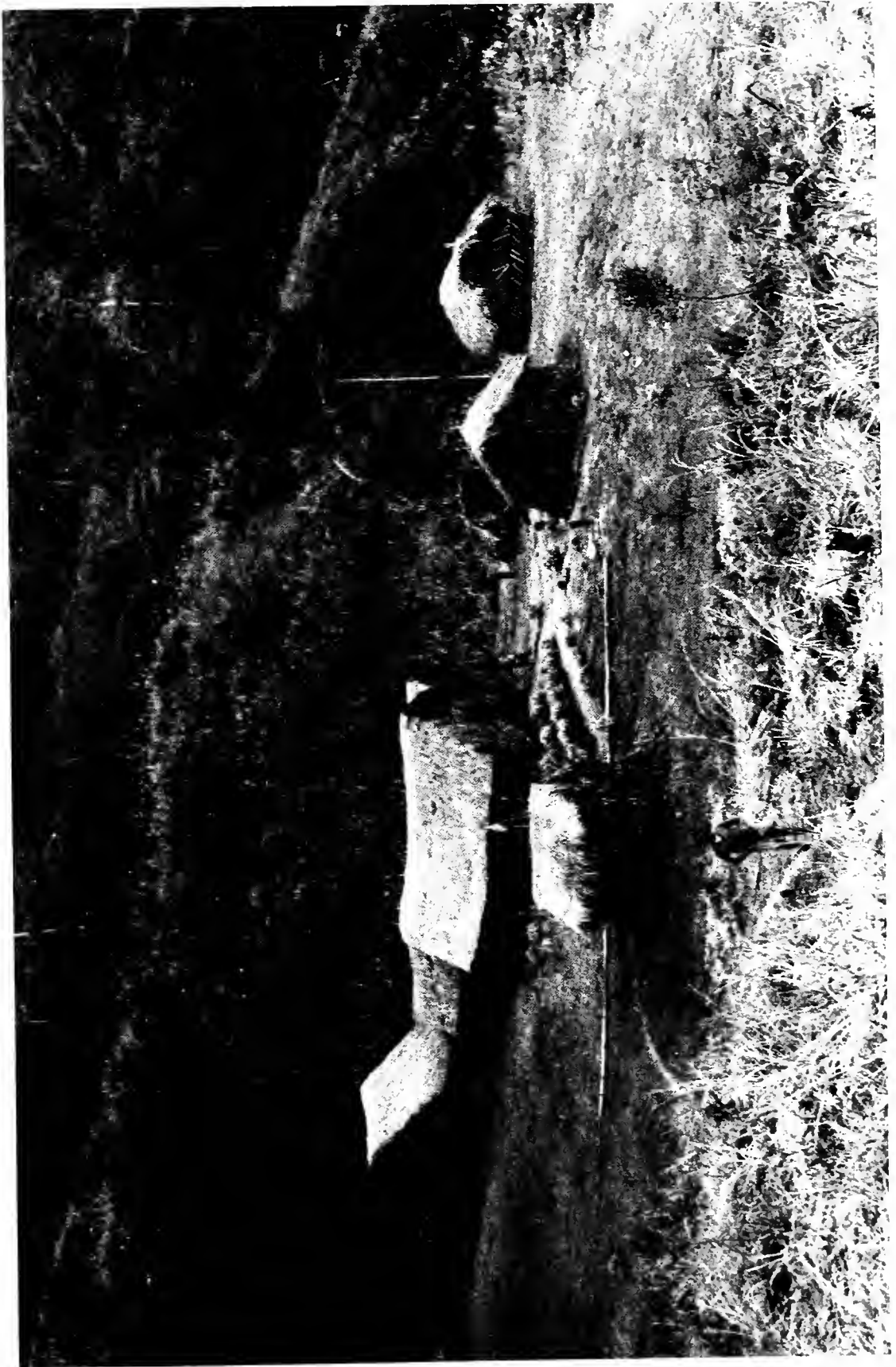






Figure 34.





Figure 35.





Figure 36.





Territory of Papua New Guinea

Return to New Britain, Kuru investigations  
in the Okapa region, Kukukuku studies  
and a journey through Genatei, Awa, Oweina-Waisara  
and Pinata-Tairora villages.

December 25, 1963 to April 13, 1964





December 25, 1963....Rabaul, New Britain

I have just "jumped plane" about two minutes before takeoff, leaving all my baggage to go to Lae; this, on learning that Vin Zigas was here. I now sit in the Cosmopolitan Hotel not knowing how to find him. Also, having found Haszler on the phone but yet no real word of where Vin is I am getting paranoid suspicions that Haszler may want to hide him. I have already learned that Vin is quiet and relaxed, and probably somewhere with a hangover from last night's drinking.

I also thought we drove past Baisi on the street and am trying to hunt down the West Nakanai who are in town. Mr. Wright of Thomson and Wright, the lumber operation at Kawaleskesi, says we have met before. He tells me he has a line of West Nakanai boys here. They tell him that there are Rapuri and Vavua (Gorea) boys here. His boys will try to find them--probably now at church--and send them here. I wonder who from Rapuri or Vavua has made it into the Technical Training School in Rabaul.

The 6 a.m. to 9 a.m. flight from Honiara at high altitude and in beautifully clear weather, stopping briefly at Munda and Buka, was this ample recompense for the garish Christmas Eve I wasted at the Colonial Club and Hotel drinking in Honiara. Guadalcanal, in the early morning--the separating and rising and dissolving clouds, as beautiful as a pine forest in a Christmas snowstorm--was an ample substitute for a White Christmas in America. The long chains of islands and reefs in the Western District of the Solomons and then the low altitude flight just over the summit of Mt. Bagana on Bougainville were marvelous. We flew at low altitude over the deep fissured chasm on the south and west of the Mt. Bagana summit and the swampy crater lake just below the highest part of the peak. Rabaul at the airstrip smells of sulfur!

I get restless as I write--the typewriter has "folded"....until I find Vin and the Rapuri boys I cannot go on.

...12 midnight...

I have found Vin--we have refound each other!

December 26, 1963...Boxing Day...Rabaul, New Britain

We are flying to Lae on a DC-3, 6:00 a.m. flight and I still have hopes of making Kainantu by evening! The brief trip here has been spent entirely with Vin and I have not even stopped in to see Haszler. Haszler's house, Vin says, he has never seen. Saave and Haszler are in a bitter clash and Vin obviously is caught a bit in it, and thus keeps out of it by avoiding contact with either one of them.

The Malarial Institute is an impressive and very well equipped physical plant with fine facilities for work and teaching--one of the best government buildings and best organized work spaces in Rabaul. Vin has turned his genius toward organizing and "establishing" it, and now it is ready for active work. Apparently he already has a competent group of native technicians who know well how to search for, identify, and count malaria parasites, but no medical entomologist. The Institute has given him a prestigious base of operations and he has managed to be on patrol and in the field most of the time. He is relaxed and in good health, but obviously only just now adjusting to divorce and to his unfortunate political position in the Public Health Department's research efforts. He is intellectually challenging and stimulating companionship, and he now wants, and needs to be busy with work he is proud to do.

December 30, 1963....Wagiri ground, below Nosiguiri, Kamira, South Fore

I am ill, as ill as I have ever been in New Guinea, with splitting headache, intractable nausea, and periodic bouts of retching and vomiting, during which I was caught off guard and suffered a strain in the right latero-posterior abdominal wall muscles which contracted too violently during the intense retching. I am a wreck, and the intense headache makes any rational approach to the other symptoms difficult. I have suffered since about an hour after arriving here early this morning, and now in late afternoon, I am little better. It is an awkward and disturbing situation.

The cause: Early this morning at Wanitabi I took a full 5.0 gm. of Alcopar for hookworm treatment, finally getting to treat the hookworm-positive stool report from NIH which I received in Port Vila. However, this was a very stupid procedure, for shortly thereafter I was sliding and climbing down the treacherous muddy trail from the Purosa road to Nosuguri. I made Nosuguri rapidly and without difficulty, only with the need for a 15 minute rest. Then we descended to Wagiri hamlet where we found the people seated in the center of a well fenced-in enclosure onto which open two old style houses. In the center, shaded with a small shade shelter of banana leaves, was the patient I had come to see, Orake, and his close of kin. He was certainly terminal, but not imminently so, still able to sip some water, and at times opening his eyes to see things about him with obvious interest. He is wasted, unable to talk at all, and obviously may die any day now, yet he may well linger on for weeks--even a month! This was one of the most perfect examples of the amazing support and psychological help the community gives to kuru victims; dragging them into the center of activities, and with cautious tenderness, rare under other circumstances for the Fore, attending them even in their terminal stages while children play about and normal village activities go on. In this case it was the cleaning of coffee beans in a large trough and the making of netted bags by several women seated about the boy. Orake was at school at Purosa,

returning home each night to sleep, when his kuru started. He was then living, as now, at Wagiri ground hamlet beside the Wagiramba stream. Just across the stream is another small hamlet of old style on Kasaovari ground with two houses. Orake's father is Yauwane, who has been on patrols with me as a carrier, and knows me well. The people welcomed us and after greeting everyone I found myself unusually tired, although not exhausted at all from the trip here, and I lay down to rest in one of the houses only to awake after about an hour with a splitting headache and severe nausea which caused me to run out to vomit. The retching and vomiting was so violent that I severely straining my right flank muscles and from then on I have been in misery.

Later in the day, sometime after noonhour, Dick arrived with some autopsy supplies and other things from Waisa where he had gone with some of the boys...I told him I had decided to camp here--having little other choice, considering my condition--and he raced off for Wanitabi to await the Landrover with the liquid nitrogen containers, shipping cylinders, and sterile autopsy supplies! In the meanwhile Anua and my other boys had arrived and they began to make the small leaking shelter here in the hamlet into a rain-proof dwelling--it is into that I have moved after several further bouts of painful nausea and emesis. We have made a bed of banana leaves on the ground and Anua has loaned me his three blankets, and I have slept all afternoon in discomfort from the intolerable headache and side pains. When Dick will finally arrive with bed sleeves and blankets, food and autopsy equipment, and liquid nitrogen supplies, I cannot say. It is already nearing sunset and drizzling rain has started. I have with me Waiajeke (Haus Kapa), Yoyo'e, Adjetmaga, Nagai, Koiye, Anua, and Anua's assistant from last year, Togaba, and Tiu and Bube--who have gone back to Agakamatasa this afternoon because of reports that Ibisa, the tultul at Kesiri, has just died of "karaina" (prolonged chronic cough and wasting). Wanevi and Injuriwambio (Andembitsuo) have gone back to Agakamatasa yesterday to fetch shoes and socks for me which I had stored there and they will join us later.

December 31, 1963....Wagiri, Kamira--South Fore

Dick arrived late, and with him all the equipment we needed; we decided that I should stay here, and we would bring all but the large liquid nitrogen container down here from Nosuguri. Dick should go back out to the Landrover and return to Wanitabi--perhaps even to Okapa. Thus, he has run a good deal of trail today while I have suffered through what I think is an Alcopar reaction. However, I am away from the New Hebrides and their salads, etc. just about long enough for the eosinophilic meningitis syndrome, and ever since the day before yesterday when I began suffering from vague transient headaches, I have wondered whether or not I might have come down with eosinophilic meningitis. I have not had any fever--unless it was last night--and little real meningismus with my headaches today.

I now write while seated on a seat made by the boys beside a fire to heat mumu-stones in the center of Wagiri ground in early morning just after a drizzle. It poured heavily most of the night and my new house miraculously did not leak at all! Tilly lamps came with the supplies Dick brought in so that we had light for making a bed from the canvas sleeve, and I had a comfortable bed and Koiye stayed in the house with me this past night. The others found places in the houses here and in nearby houses across the river. The village is filled with babies and small girls and boys under five years of age. They all appear in good health, and thus, in spite of the inroads of kuru on the population here, births continue to exceed deaths!

Anua complains that Dick has paid him only one pound per month and that he has not had any real work, and that he has been supplied with very few additional. He tells me Paul Brown did not understand his Pidgin and when he took money from Paul for some pipes which Tiu and others at Agakamatasa and Purosa were to make, Paul apparently misunderstood that he had purchased pipes at the Wanitabi house which Dick had already purchased. Thus, he has been severely reprimanded by both Dick and Paul and seeks to explain it to me. I shall have to supplement his pay by two pounds per month for this past month, for he is rightly on three pounds per month now, and I shall probably raise him this year to four pounds per month or more in addition to all the accessories which come to several pounds a month. The problem now remains just when to start patrol and how long to wait here, having made all this effort and fuss yesterday. Orake may die shortly, in which case we can have autopsy permission and are right on the site ready to do it. However, we might have to give several weeks to such waiting and that poses real problems!

I arrive here at Okapa by chartered TAL plane from Goroka on Boxing Day having flown from Rabaul to Lae in the morning, telephoned Lucy and Jack Reid but having to take off again for Goroka on the Government charter flight before they could get down to the strip to see me. At Goroka, Dr. Frank Tuza and his family wined and dined me and helped me get off at 1 p.m. on the TAL chartered flight to Okapa, where we buzzed the government station--crowded with a huge hoard of natives at the annual "Christmas singsing" on the station. We landed at Taramo and within about ten minutes of arrival the Landrover with Dick in it arrived, astonishing me until I realized that he had been waiting for me with Mr Schmutterer in Pastor Steinbauer's house here at Taramo. Thus, we were immediately house guests of the Lutheran Mission group at Taramo and then taken on to Awande where I met Sister Maria again and toured her hospital. I then went on to Okapa to meet Jon Hancock, Dr. Hornabrook who has been here but a few days with his family, Mert, and Les Auchetel, the EMA. Dick and I were house guests of Mert who helped us well, and we stayed two nights, getting acquainted with Dr. Hornabrook and discussing matters with Mert and Jon Hancock.

Paul Brown got back to NIH for Christmas, and succeeded in getting a total of three autopsies. Two have arrived in liquid nitrogen at NIH and the third, by far the best, is now in a liquid nitrogen reservoir in Brisbane with Dr. Shaw. Until it has successfully arrived at NIH with the specimens, I have cause for worry...and I have written to NIH asking Jo Gibbs and Paul to proceed with arrangements with shipment, asking Rosen to help assure safe transfer from plane to plane at Honolulu.

This fourth possible post mortem on which I am now waiting, would be well worth getting but with only a small supply of liquid Nitrogen left here, it must come soon and there is little assurance that it will. I shall look over the situation today and come to some final conclusions and decisions this evening.

The stack of mail I found awaiting me at Okapa has been largely handled and I am thus not far behind with my work. I need to copy the Ipayato serum lists for Bob Kirk and the office and send them on and write up a Tongariki medical report for Bob, but other things will require much careful thought and quiet work and I cannot manage any of them here in this muddy hamlet. I am pleased with Paul's work and extremely pleased with all Dick has done. Our team has worked well and it now remains to sustain the effort to some successful results.

I have been talking a great deal with Yauwane who tells me that too many boys have died of kuru and that he wants me to take one of his surviving youngsters, insisting that I take into my line of boys Waiso, a boy of about ten, who comes from Wagiri and is the adopted son of Yauwane. His mother, Ebo, died of kuru and his father is really Wanaga who is here now.

Ata, Orake's mother, is well and Orake is her first child. Younger siblings here are Tamuta F-7, Kanaia M-3 and Tabu M-1 1/2. Orake is perhaps 9 years old.

I have now examined Orake again...he cannot talk, but he can at times cry and mumble sounds which are almost intelligible. He cried for water earlier today and given water from a bamboo cylinder he drank it well, although others told me he had already stopped drinking and eating. He is unable to sit and must be propped up and his legs must even be propped up; for when supine, he cannot hold them upright with knees flexed. He has decubitus ulcers over both hips and starting over his sacrum and these he cries are painful. In kuru there is no pain except:

- a. pain of headache often reported prodromally
- b. pain of leg pains often reported prodromally and sometimes in early stages
- c. severe pain in joints and especially hips in late, near terminal stage. Jon Hancock has observed this severe pain in women without decubitus ulcers in the Awande hospital in the terminal stages of kuru.

Orake is amazingly alert, moving his eyes about, answering with his eyes, and even fixating quickly when his name is called but he cannot really speak nor move. There is a coarse irregular shake of the right hand and right foot and these are not a tremor, but a coarser oscillation. He has no sustained ankle clonus or patellar clonus, and other reflexes are sluggish, abdominals absent on the sunken abdominal wall. He is slightly but not severely dehydrated.

I have a lingering headache and tenderness and slight pain on motion in right flank, but no nausea or emesis yet. As I was drinking some Milo, Dick and Jon Hancock arrived, Jon having come with his medical kit--even iv fluids--worrying that I was very sick. Yesterday I was, but now I am considerably better. He looked over the hamlet, the small mumuin process of cooking, and Orake with me and then Dick and he took off our deciding to sit and wait on Orake, which may be a long wait. If he is not dead within a few days I may abandon it, but for the moment it is the best course, this being also an interesting group of hamlets to study. Thus, Dick and he have returned to the Landrover and to Wanitabi and I shall stay on here, setting up a second bed sleeve for Dick in the small house we have made, and getting our equipment fixed up, and waiting and watching. If we should get a good early post mortem in a day or two it would be most fortunate, giving us a total of four instead of three to work with at NIH--and the third is not yet securely there and not yet

into primates. I do not know what decision we shall make if Orake's illness should drag out into weeks, as it well may!

Dick and Jon have now gone back, Dick to get further supplies from Wanitabi and to return to move in here with me, and Jon to return to Okapa to send out the Landrover with our BP's order, and with mail and our shipment of supplies and films, papers and records to go back to NIH. Thus with the year end, we have managed to get the New Hebrides studies finished, the programs of Dick and Paul in New Guinea successfully completed, and now I am launched on my own work here, trying at first to get yet another post mortem examination if possible, but not at all certain that I can give weeks of waiting to it! Tentatively I want to patrol thru the Keiagana, Keiagana-Yagaria, and Gimi down to Pai'iti and then the southernmost Fore and that will then be all that Dick can do here with me. If possible, I shall take him to Taipini or to New Britain, and then he can return to NIH, while I try to round up Kukukuku studies in a number of places. This will be all we can get done on this occasion, and I shall be surprised if even this much works out well. I fear that the decision to remain here at Wagiri may cost us many days--but if it means a further good specimen in liquid nitrogen and in formal-saline it is worth it. I think that we should have no trouble here in getting permission for autopsy.

I remain dozy and tired in spite of all the sleeping yesterday, and I am not up to much trail walking. I should like to climb to the Arinoguti hamlet of Kaimira, but will have to leave that for tomorrow.

A miniature mumu was made here early this morning for a few bilums full of sweet potato, corn, and some manioc...it was filled with small stones and the hole was only some two feet deep and two feet in maximum diameter, if that! However, it took a full long, thick, bamboo full of water, and it was covered with a thick layer of filthy mud--perhaps, 10% pig feces, as Dick remarked on seeing it--but the underlying food was well-protected from the mess by kunai and banana leaves. I had two good pieces of corn cooked in it for myself.

Anua has been touring for about two months about the South Fore and some in the North Fore recording kuru cases in this period between census patrols, for Dick and Paul needed to know of possible autopsy candidates. He has kept a notebook and for a lad without even a day of really formal schooling, his Pidgin record is good. I am transposing it to typewritten sheets, and since there is some doubt as to parentage, etc. in assigning some of his notes to the proper patient, I will not be surprised to find inconsistencies, however, it will help to get our case records on many cases a bit closer to fact, by recording this visit from Anua. He is working wonderfully for me today and yesterday. Nagai, Yoyo'e, Adjetmaga, and even Waiajeke are marvelous with their facial expressions of dismay, disgust, hopeful anticipation of rewards, etc. However, I have succeeded in getting even them to work and carry cargo here from Wanitabe, and I feel proud of this. They do have a notably brazen way of sitting around

when others are working, and yet expecting equal, or excessive reward for their "work". The lingering headache and the headache a few days ago all suggest that my ailment may be more than a reaction to Alcopar, and I suspect a possible eosinophilic meningo-encephalitis, picked up in the New Hebrides where it is epidemic. I shall now continue Alcopar trying it again somewhere where I can lay down comfortably and where I shall not work too strenuously.

I type surrounded by over a dozen small boys and girls and a half-dozen men with curiosity for this machine. The other Olympia machine is not typing a clear image and demands thorough overhauling. We may need to borrow or purchase another.

...4 p.m.--a guess

I have lounged about and slept, consumed Milo and further soup, and held it down, and except for a lingering headache this bout of illness may be over. However, whether the decision to wait out Orake's kuru death here has been wise or not remains to be seen, and I could well imagine him surviving for a month. We shall give some 3-5 days to it, come to a firm decision at that time, and then either work near here or go on patrol, abandoning the possibility of a further autopsy. I finally came out of the house to find another mumu in preparation--this one much larger than the former one. Seven Ketabi Purosa visitors have arrived and Anua sits playing lucky with his wontoks using the new cards Mbagintao sent to Koiye. A hot sun shines, and women are preparing food for the mumu. It has been a wonderful village afternoon for photography, especially with all the small children playing about, but I have turned over all the cinema to Dick, and am, for a change, without photographic equipment.

December 31, 1963....Wagiri hamlet, below Nosiguri, Kamira-South Fore

Nosiguri and the Wagiri hamlets (consisting of four house sites which contain 2, 3, 1, and 2 houses, respectively, not counting haus bluts) comprise the Ketabi portion of Kaimira which is centered in the Arinoguti complex. Yagasayaguti is a small two house Kamira settlement with close Arinoguti affiliations. Ketabi is the big name of a super-clan or some such thing which extended throughout the South Fore before government penetration. Thus, Ketabi is largely in Purosa, while this Nosiguri-Wagiri portion of Kamira is also with close Ketabi affiliations as is most of Awarosa, some of Iresa, a few people from Abomatasa, and one portion of Mobutasa, across the Lamari in the Awa. Part of Agakamatasa is also Ketabi, and Ketabi extends even to the Gimi through a Misapi group. Both Takari and Urai have some Ketabi people between Purosa and the Gimi and even in Wanitabi in Atigina there are Ketabis. There were three men of Ketabi who went to Onumaga in the Kamano in the period before government penetration and they have had children there. Waisa was almost everyone's enemy

with large temporary federations formed to wipe them out. Only Iresa and the Arinoguti portion of Kaimira were regular allies of the Waisas.

Today I was told that Orake had dai pinis only to revive to eat a little taro, banana, and yam. He is alert this morning. We have drained the stinking, fermenting mumu pit in the center of our hamlet and cleaned off the hamlet site. It is now much more pleasant than it was, and we have managed to roam about inspecting the different house sites of Wagiri this morning.

The Wagiramba stream below the hamlet site we occupy and the further stream, the Pigagaramba, flowing into it, are the major streams of this valley, which runs into the Waisaramba River.

...6 p.m....

We have lounged about all day, Dick taking much cinema and still photography and I getting more familiar with the affiliations and geography of Kamira. Later in the day we dragged Orake from his house, finding him almost terminal in the hot sun, I hesitated to start washing him. However, with a big pot of hot water and a bucket of cold water and a roll of cotton, Waiajeke, Koiye, and I started to wash him and he promptly revived very markedly. I cleaned and dressed the large decubitus ulcers over both hips and then gave him a new laplap. He then sat in the shade of a fence for the rest of the afternoon, in the laps of a large group of young relatives from Ketabi Purosa, and even vocalized very dysarthric complaints of flies moving into his mouth when they failed to fan them off. He could not swallow kumu they put into his mouth, but does swallow water. Relatives keep coming, quietly sitting holding him in their laps, or with only his head propped in their laps, and without talking or exchanging many remarks, spend several hours or a whole night in this last service to the once-schoolboy who walked daily to Purosa to Mr. James school there. He developed kuru while a schoolboy and has progressed steadily since then to this terminal state. He is remarkably alert and it is only his total inability to talk, to move his head, arms or legs to even spit out flies or move a hand that makes the terminal stages of his illness so dreadful. However, the life of the household goes on with children playing, people arguing, even discussing the fact that he is not yet dead, all in his presence and hearing, and he seems less distressed by the whole situation than one of Western culture might expect. There is no deep atmosphere to silence, respect, mourning, or tragedy associated with his terminal disease, but rather a respectful deference and attention by all close to him and an attempt to keep him in the life of the village to the very last.

The hamlet has really welcomed us, and I have had to explain time and again why I cannot take all the youngsters offered to me for my line of boys. Thus Waisa, a boy of about 10, is a wild and intelligent lad who has been thrust upon me; but although I like him I find him not terribly responsive to new things nor readily satisfied with leaving the village,



and I have a host of others about who are begging to come with us, more responsive and quick to grasp our needs and to help. Obiriso is about 11 years and is the most interested of all--except perhaps 2½ year old Kainai'o, who is the full brother of Orake and is ever playing with us and walking about with us and tells me repeatedly that he will go with me.

A small boy of perhaps three years named Kiap, and this 2½ year old, Kanai'o, are thus the two most promising youngsters I have met here and I will enjoy seeing them in a year or two. Both are a bit aggressive and over-confident and perhaps herein already represent more active personality types than might make the best scholars, but it will be interesting to see just what develops in this peculiar culture in transition.

I am now rereading portions of Proust's "Cities of the Plains (Sodom et Gomorrah)" and I shall then return to Hume. Orake has "revived" sufficiently to make any prediction of the date of his death impossible, for although he is no longer eating, he does take water and occasionally drools over a bit of kumu or other food, and thus he may live on for weeks, although I expect him to die any day. We have made now a rather thorough cinema and topographical survey of Kaimira, and we have entrenched ourselves well with these people, who will, I trust, grant us hospitality and cooperation as we may seek it in the future, so that even if we abandon the vigil without awaiting successful termination of our quest, it will have been a very profitable sojourn.

January 1, 1964....Wagiri hamlet, Kamira - South Fore

Today Dick and I took a long trail to Arinoguti portion of Kamira--the Iresa-Waisa affiliated portion of Kamira from which the name Kamira is derived, although it is now shared by the Ketabi group of Nosiguri and Wagiri--and there I visited the Arinoguti, Piawanipinti, and the Tabumuti hamlets which are all being rebuilt with very well-constructed new houses. Arinoguti has many of the new-style round houses not designed to contain a fire, which predominate in Nosiguri as it has been rebuilt. This is a "fine idea", to restrict fires to a nearby haus kuk, but fires are not generally for cooking, but rather for warmth in this chilly clime, and the people neither have enough blankets, nor enough money with which to purchase them. Even with six blankets, I often find myself chilly without a fire. It is stupid to encourage this type of housing. Finally, without soap and washing facilities, to encourage more blankets and clothing is only to encourage further filth and vermine, and eventually, typhus. Finally, respiratory infections are prevalent enough as it is... yet more in breezy, airy houses without adequate fires.

The natives seem to be off on this house building tangent themselves, with the missions denying any insistence on it and the kiap also denying having ordered it, although some election officials have returned to the villages with the story that the kiap would burn their old-style houses down if they had not clean, neat houses without fires. Just what has given

rise to the fad, I do not know, but this marks yet another new-style-housing fad in this region.

The "death watch" in which we are all too literally engaged is dragging and although chance will have it that Orake dies just after I give up and leave, he is just about as he was when we arrived, and could still survive a week or more! I have decided to abandon the "watch" the day after tomorrow in the morning, sending our supplies off to Wanitabi tomorrow afternoon and leaving myself the following morning. Thus, with luck, we could launch off on patrol the day after tomorrow, but that will mean evacuating our last supplies from here early and keeping on the move all the way to Keefu in one day!

Mert is fuming, I am told, having been told that I overloaded his Landrover with boys en route out from Okapa. He is thus not approachable for any transport and the squabble has resulted in Dr. Hornabrook withdrawing from Mert's control the new Jeep given to the Public Health Department for his work, thus leaving Mert with two ailing and decrepit vehicles. Jon Hancock did not mind this arrangement for it meant that Mert always made transport available to him for medical matters whenever he needed it, and he had no headaches of caring for vehicles. Now, Mert is indignant at Hornabrook's move, but Hornabrook is not likely to suffer all the administrative pettinesses without protest. He should be here with us, seeing the terminal kuru up close and living closely with the people, and, were he here to cover the last post and let us get off on patrol, all would be fine. However, from distant reports from Moresby and elsewhere, where the situation is not understood, he has fears of being identified with autopsies rather than having an informed, sensitive interest in kuru. He should know that performance of autopsies only increases the peoples respect for us and feeling that we have a real and genuine interest in them and their plague.

Today at Arinoguti we visited only Arinoguti, Piawanipinti, and Rabumiti but not the new site of Paroyaguti which is replacing the old Kamosonkagori. There are a few other small old, now partly deserted Kaimira hamlets such as Nagienti, beneath Arinoguti. At Arinoguti there is a woman with kuru, her name is Ai, the wife of Taganta, who is also called Obariso. This is the maternal grandfather of the 10-11 year old youngster, Obariso, of Nosiguri, who wants to join my group and hangs about with me constantly. Ai is a woman of Abomatasa birth, of an Abomatasa mother and an Iresa father--thus she is not from an area of very frequent kuru! Her first husband, from Abomatasa, has died, and she is now remarried to Taganta of Kamira, and here in Kamira, in Arinoguti hamlet, she has developed her kuru.

January 2, 1964....Wagiri Hamlet, Kamira-South Fore

We finally decided to abandon the death watch, and yet we know full well that Orake will die shortly after we have really abandoned the vigil. It will probably be another few days before he dies, and yet it might well be another

week or two! The cost to our work hardly justifies it right now, since we have left very good relationships and no resentment about autopsies at all behind us, we can easily return to them, and with three successful ones (I only wish I knew that the third was successfully in the NIH!) behind us, we can safely lose this one. It has, nonetheless, been a profitable sojourn in the very center of kuru morbidity, and we have cemented relations firmly with Kamira. I have tentatively accepted both Obariso and Waiso as new boys in my line, thus accepting the Kamira pleas that I do so, and we shall see how they work out. Obariso is obviously very intelligent and receptive, Waiso is perhaps more rugged and steady and wary. Both are about 10 years old...perhaps 11 at the most!

Today we sent a heavily packed cargo box of all spare supplies back to Wanitabe and then Dick and I and many of the boys set out for Purosa, because we learned that the Kiap had arrived there by Jeep to work on elections. As we left, Yandobi arrived having heard of my decision to again cross the Tsoma Valley from Paiti and Somai to Heroana and thence to descend southward down to Pio to Iare settlements and to the Iare village itself! Whether we shall really try this or not I do not know, but I have hatched the plan and now will need someone like Yandobi, who can speak Yar-Pawaian, to translate, should we follow it through.

The Mugaia muti boys also just arrived as we were leaving. I suggested that those who wished return to Purosa with us and the others stay at our camp with Koiye and Wanevi and others who were watching it. Anuma, Dick's cook, is ill with cough, sore throat, headache and neckache but no real meningismus. I have him on terramycin, undiagnosed! He also remained in our camp at Wagiri. At Purosa we learned that the kiap's Landrover had dumped his police guard and supplies and returned to Okapa to return with the kiap for the South Fore kuru and election training patrol in the later afternoon. We greeted the Purosa people. An "informal" court was in progress under the initiative of the turnim tok for the kiap, in which two Takari women who had left their husbands and came to marry Ketabi Purosa young men were up for "court", with their new husbands, charges having been brought by their Takari first husbands who in anger are said to have told them "alright, get out and go to your lovers in Purosa!", which admonition the two wives have followed to the letter to the chagrin of their first husbands! Other "election schools" were in progress and all this New Guinea-wide general election work of the Department of Native Affairs is a great mystery to me. It seems as though the kiap has chosen Magariso, the Fore turnim tok from Emesa, as the "elected" candidate for the Okapa Sub-District and now the "election courses" are designed to get him chosen by "democratic" processes. Apparently Mert is running an election instruction course in Okapa and on this South Fore patrol his patrol officers will be giving further "political instruction".

The site of the former great Purosa church was clear with no sign of the former great structure, other than a neat pile of salvaged timbers along the road. A few young saplings were already growing in what was the center of the edifice when I left here in mid 1963 with Mbagintao. At the Tabowani bridge, just entering the James's mission reserve, work was in

progress to build a dam just above the bridge--likely to create another administration-James controversy when it suddenly collapses washing out the "kiap's bridge". The old church timbers are to be used for the dam, which will create a swimming pool. Whether it will result, as I hope it will, in some swimming skill in the swimmerless Purosa Valley, or whether it will collapse with drownings of small children and washing out of the bridge, I cannot predict.

We had not eaten any breakfast and thus, hoping to be invited for lunch, stopped in on the James's heavily enclosed fortress. There we found Sharon--a pretty girl of 8 years--and her mother alone with their cook boy, Mr. James and Doctor Stewart Merriam, who is a Doctor of Divinity with the Presbyterian Church who has now come to join the James's, were still out on a patrol to visit the New Tribes Mission station at Negibi in the Gimi, and to visit all of the James's mission stations to the west of Purosa. They were already a few days late in returning. We were shown Kodachromes of the fallen church before it was cleared away, and Kodachromes of the youth who died in the crash when his body was returned from Okapa to Purosa, and also of the woman who suffered a fractured spine in the collapse of the church at the Goroka Hospital. After discussing the death, the fractured spine patient who may not survive, and the other injured, we later in the day again returned to the matter and Mrs. James, now discussing it stresses the "miraculous salvation" of herself, her family, and the major part of the congregation with the great timbers falling everywhere around them without touching them, and in her extravagance leaves the story as "and no one was hurt at all!". Thus, already legend has it that a great tornado sprang up with torrential downpour during the church service and that the miraculous crash was sent by God, with the James's and their congregation "saved", and natives already testify to seeing a "shaft of light from Heaven" at the time.

Dr. Merriam is apparently one of the national figures in the U.S. in Church controversy. He was the Pastor of the Broadway Presbyterian Church at 116th Street, near Columbia University. He got into difficulty with the Presbytery over rather radical and press-agentry-like tactics in the pulpit and, finally, over disclosing to the press a tape recorded conversation he had had with the Department of State about some Iranian scholar friend whose television performance had been cancelled. This "political" activity and rather unconventional performance in the pulpit had set the Presbytery against him and he was dismissed from his church by the Presbytery against the protests of most of his congregation. This dispute he brought to the press and in mid-1962 the story reached the front page of the New York Times and other national papers as well as Time magazine. After his dismissal he has started a round-the-world tour which was heavily concentrated in the Holy Lands and the Middle East and India and has now brought him, in pursuing his visits to all the mission stations of his former church, to visit the James's who were of this congregation. Here he arrived in mid-October with only a small traveling bag and here he has "moved in", finding his calling in mission life, helping with the school, taking over the James's visitor's house they built for the arrival of Miss Cervinka, and making it into a very comfortable studio-office-dwelling with a windowlight skylight, large

"picture windows", etc. Here he is writing a "My Year in Exile" or some such work which Mrs. James types up for him each day after he writes his chapters of the evening. He is very handy with tools and handicraft and has been a great help about the mission, but Mrs. James already thinks that if he stays, as he has indicated he might do, he perhaps ought to move out to some other station, there being so few here to do all the necessary work. Thus, as with Miss McGill and with Miss Cervinka, the James's already want to be alone and shove their "assistants" to the outposts! However, as we look over Doctor Steward Merriam's study and work desk, Mrs. James shows us the sheaf of orderly clippings, copies from all the National papers and journals about his suspension and ousting, and she tells us his major interest is this "exposure" of the Presbytery and of its undemocratic procedures, in his book on his trip around the world "in exile". Without having met him, it is obvious from the story and all I have heard that he is a more ambitious figure than one content to an obscure missionary role for long, without some press agency of it, and thus I soon expect to see a "sensational" devotion to the "savage" and a super-sensational use of the New Guinea Fore and their kuru for the purposes of defeating the Presbytery. This will be most interesting. At least, for the moment it brings the Purosa Fore and their neighbors his skills, his teaching, his ability as an organizer and schoolman, and his scholarship and temporary dedication to them, and they can profit from it. I shall enjoy meeting him eventually.

Sharon is starved for playmates. Merriam has built her a huge doll house and she drags us to see it. He has built her two see-saws and she says, "since I have no children to play with, he pushes one side of the see-saw for me to ride it".

January 4, 1964....Keefu, Haus Kiap, Keiagana, Okapa, E.H.

We have spent a none-too-active day sorting out cargo, having emptied everything from the Nosuguri camp, from the Wanitabi house of the Glasses--which had had dumped into it all the supplies from the Waisa house of the Alpers--and, finally, from our Okapa Supply Depot and accumulated store orders, into boxes, crates, and cargo boxes and hauled it all here yesterday. I have with us 13 of my old boys, two new ones, three from Dick's retinue, and Yandobi of Takai-Purosa as translator for Yar-Pawaian. This makes 19 boys in all, who are not the carriers, although I have loaded them with a good portion of the cargo, smaller loads than cargo boxes. The boys with me are: Masasa, Anua, Wanevi, Waiajeke, Tosetnam, Koiye, Injuriwambio, Adjetmaga, Yoyo'e, Kene, Togaba, Nagaio, Bube of the old group; Waiso and Obariso from Wagiri and Nosuguri, Kamira, the three new boys: Anuma, Kerako and Paku from Dick's group, and Yandobi. Masasa is the only docta boi I am taking, and Jon Hancock agreed to spare him from the Okapa Hospital for our patrol. Sinoko had wanted desperately to come, but without anyone to cover the Okapa laboratory, and with Jon Hancock now leaving in a week or two, he could not be spared. I have secured the promise that he can come with me on my big Kukukuku patrol after this one!

The carriers with me are mostly from Mugaiamuti--the group of my "old line" youngsters, now mostly schoolboys at James's Purosa school, at the Seventh Day Adventist school at Keiagana, and at the Kainantu government school (Abaka)--with a few older and stronger Ketabi, Purosa, Kamira, and Wanitabi and Takai-Purosa youths. This group, numbering some 20, is not really strong enough for a bush-cutting trip to Heroana and down to Iare, south of Heroana, but they are a group astoundingly loyal to me and I shall size up the possibilities of their cutting west from Pai'iti en route down to Misapi, Somai and Pai'iti! We shall have to use local supplement-carriers along the way, and the patrol is thus likely to be inordinantly expensive.

I have issued belts, T-shirts, and blankets and soap to the boys today and managed to buy a huge supply of food for the whole group, so that everyone is today very satisfied.

Besides patrol preparation, I have sorted out papers, attended to some correspondence, and finally found a "red-skin" family of a father and four children; the father is himself light brown, and his dead wife (of tunakafe "poison") was a full "red-skin". The oldest child has not yet appeared, but the next three are "red-skins" of successively darker complexion, the second of the four being very light and red, with light brown eyes and nystagmus, some head shaking, and much photophobia. This "partial albanism" is worthy of much further study, and I hope to collect some further urines on these children tomorrow. Interestingly, the lightest complexioned, O'opa, a girl of about seven years with hazel irises is also "longlong" and by this they apparently mean mentally defective.

Dick has taken compass sights to all hamlets visible from our high perch at this Keefu haus kiap. It is actually a "court house", built after the push for local court houses, instituted by Chief Justice Mann while he was visiting here with John Young-Whitford, and it serves Keefu, Ketu, and Wanaepa (Wan'epa). Unlike all older and traditional haus kiaps of this area, with the notable exception of that at Okapa above the pine forest, this is raised from the ground over 40 cm. We also took photographs of an old man and old woman with mid-epigastric herniae, and of the nasal-perforation with the straw inserted, in an old woman.

Payment for food has been in the form of shillings, threepences, tobacco, soap, and matches. We have loaded ourselves down with expensive food orders from Goroka and Kainantu, costing twice or more what food in the U.S. would cost--air transported to the Highlands and either air or Landrover-carried into Okapa--but we may do little better than we did in Wagiri, largely on native vegetables and one chicken.

Yoyo'e, Injuriwambio (Andembitsuo), Adjetmaga (Matakiau'o), and Nagai (Ingirinduatnumu) give us a component of four full Kukukukus, and with Waiajeke (Haus Kapa)--adopted Fore--we have five. They substantiate Mbagintao's original name as Ameiaosinumo!

January 6, 1964....Haga, Keiagana

We left Keefu at various hours of the morning with various segments of our cargo line, sending the first 18 carriers of my Fore boys from the South Fore off with loads already tied last night, before 6:30 a.m. The remaining cargo boxes required packing, tying, and finally, finding cargo carriers from Keefu. We finally had carriers, including a half dozen small boys under 9 years of age from Keefu, for small items by about 8:00 a.m. and by then we had also swept the dirty haus kiap (and court house) site clean and could thus leave. I sent Dick out shortly after 7 a.m., following at 8 a.m. myself. By 10:00 we were installed at the haus kiap here at Haga, but Kapekono, the old luluai who was our friend and helper in 1957, is away at Okapa today.

I have seen and briefly examined three women who have allegedly had kuru and recovered, and three others with a similar story, also from Haga, have not yet been seen--one is off in the Gimi for a visit and the other two may turn up before the day is over--if the pouring rain of the afternoon shower stops. Ovito is one of our "recovered" kuru patients from 1957. None of the three I have seen and Dick has photographed has had active kuru since 1957 (Ovito was ill with kuru in 1962). All had briefly early disease and then recovery. Interestingly, Ovito developed her kuru while resident at Keefu, where we know "hysterical kuru" to be prevalent.

The route here is along the new road into the Gimi which has been built all the way here to Haga, except for a few still missing bridges beyond Wana'epa and several still unstabilized portions of the road with landslides beyond Ketu. Today was apparently the day of assigned road work, for people from Wanepa, Ketu and, especially, from Haga, were out working on the road. We stopped to watch the Hagas fell a huge tree, and Dick was trying to take cinema of it, but in falling it frightened the boys so that the lad holding the battery to his Arriflex ran off and disconnected his camera from power supply.

Last night, as we were finally packing and tying up cargo and assigning carrier loads--the real organization of our patrol which I had thus far neglected--Dr. Hornabrook arrived apologizing for not bringing the family. I went on with the work until it was done, giving him the new Burnet speculative paper on kuru to read, and then we sat down to a long and good meal of the chicken and potato salad which Mrs. Crista Schmutterer of Awande gave to me for Dick and myself. This, with a bottle of good wine and a good soup, provided a very fine meal, and over it we talked for hours, I, as usual, doing most of the talking. Hornabrook is obviously looking for a profitable avenue of inquiry and effort while he is here in the kuru region, and he has wide interests beside his medical interests. Thus, I discussed with him his plans for doing a general natural history of the region, telling him of the limited ethnobotanical, ethnopharmacological, and ethno-zoological studies that have been thus far done--none completed.

Two of the eight young adult carriers who helped us carry from Keefu have stayed on my permanent carrier line, and thus we now have a component of 19 boys (including Masasa as dokta boi and Yandobi as Yar-Pawaian translator) and 22 carriers...a total of 41! We needed another dozen to get us here, but if I can keep the permanent component down to 40-45 it will be a feasible, yet luxurious patrol. Over half the carriers are adolescents and preadolescents.

At Keefu the only medical accomplishment was the photography and examination of a series of umbilical herniae and a family of "red skins", and most of my time was given to sorting out our shuffled supplies and getting properly equipped for a long and extensive patrol. I think we are now well off and can make the proposed trip effectively.

I have started to use the A.O.H.R.R. Pseudoisochromatic Plates of Hardy, Rand, and Rittler in shaded daylight (whereas they are designed to be used only with specially designed American Optical Company lamps with daylight excluded!!), as we used them on Tongariki, to look more extensively at color-blindness. It will be a worthwhile study and already I have found some interesting color-blindness among the Fore.

There is now a medical Aid Post here at Haga with a local Haga boy, named Mosan, conducting it. Several lepers here have been to Okapa and two are back on Aid Post out-patient treatment. There are now four lepers from here on treatment at Okapa. Tropical ulcers have been very "epidemic-ally" prevalent here as at Okapa this past year and Jon Hancock tells me they have been extremely prevalent at Keefu. In view of Tony's and my contemplated study of possible virus-isolations from the surfaces of tropical ulcers, this would have been a fine opportunity for study, and I now regret not carrying with me cultures into Heroana, Iare, and these remote regions. However, we will not have refrigeration for a week or so after being there, and it will be best to arrange this nearer to a refrigerator and with more prompt shipping facilities than from some region as remote as Iare!

Waiso and Obariso, both about 10 or 11, and both of Kamira, are working out well as two new boys in my line, and they have even carried a bit of cargo conscientiously. I would like to enter a Keiagana and a Gimi or two, but know the problems with a predominantly Fore and Kukukuku group who do not welcome these "outsiders".

#### Later, after supper:

I invited Kapekono, lulai of Haga, and Menemuto, luluai of Kigupa, to have supper with us, they having arrived late in the afternoon from an all day trip to Okapa. They are still with us and it is really late. Dick had noted a father sitting and watching him, instructing his child of between one and two years of age to talk to Dick, and the small boy would repeat the words and phrases his father gave to him. This Dick wisely thought worth taping and the fuss of getting the Nagra tape recorder set up did not stop the process, and he has made a good tape. He has also succeeded



this evening in getting very good Keiagana singsings which I thought would be purchased from far afield, but which proved to be pure Haga singsings, largely about women.

Along the walk here, Dick was attracted to the drawings the boys cut into the freshly cut dirt and clay faces left by "carving out" the road. As I have noted year after year and often photographed, he noted now that most of the drawings were of vaginas, with deep vaginal holes dug into many of them. I have watched the kids plying at copulating with these artificial vaginas, but they usually do no more than draw them or at most feign copulation without achieving an erection. He has, I trust, made a good record of the matter today--far more complete than I have ever been able to achieve with the many other matters on my mind besides photography and recording. It is really fine to observe a bit more and get involved in a bit more extensive questioning and study with photography and tape recording being so very competently off my hands in Dick's province, and I am very, very satisfied with what has been achieved by having him working here in the Fore.

Dick is almost as proficient as the Kuks in eye flirtation and eye discussion with the boys, and thus has very quickly noted the vast difference in this respect between the Fore and the Kukukuku boys in my line. The male society of a patrol line and these Highland areas of the Okapa Sub-District calls for very considerable thought. Their Fore songs are all about seduction, rape, and desire...the singsings are flagrantly erotic and the boys make artificial vaginas for themselves along the walls of the newly built roads. Yet, when it comes to any really sensuous activity other than their homosexual dalliance, there is very little in youth. Girls may jest, but they tend to rush from anything that looks as though it might get serious. Boys tend to jear and jest about their heterosexual contacts, and rush to discuss with their friends invitations from older women, rather than quietly accepting them. Fore adolescent sexuality is crudely erotic in public, furtively crude and non-subtle in private, and restricted to nocturnal and very private daytime contacts. It is not an unembarrassed sexuality of pleasure and free enjoyment, but furtive, heavily penalized by jest and ridicule and a grasping of furtive pleasures more akin than in American adolescent society than to French or Polynesian. It is difficult to imagine the lives of adolescent girls and ripening girlhood in this culture.

The Schmutters and Sister Mariane Horn at the Awande reminded me of the letter from Dr. Eva Schwinn of the Neuropäthologisches Institute der Universitäts klinik in Hamburg-Eppendorf which they handed to me when I arrived at Taramo a week or more ago. I had not yet answered it, and re-reading it I discovered that Eva Schwinn was in urgent need of kuru pathological material if she was to do any work on it. She must finish her work in Hamburg in February. I have just radioed to her and to NIH to arrange for immediate dispatch of one of the kuru brain pathological specimens to her! I forget whether the last fixed whole brain went off to Beck in London before I left. If it did, we have only the second liquid nitrogen case with a fixed hemisphere to offer her. I have asked Paul to dispatch it. Again there is the tactful matter of invading other worker's provinces, for neither will Meta Neumann nor Elizabeth Beck be any more pleased than Klatzo at seeing others enter "their field" of kuru neuropathology. It is just like the touchy matter of my working now with Bob Kirk and Roy Simmons at the same time, and of our NIH collaborations with Leyshon and Roy simultaneously.

I find myself no less the victim of these matters, but I can see only too clearly how little of all I have bitten into in the vast number of different problems and projects in primitive cultures---in this Kuru region alone---I can myself ever really complete, and I keep trying to welcome more through or supplementary studies by others...either colleagues or competitors. It is, however, for my own work, a problem to wisely choose the intellectually most rewarding and the practically most feasible of the many projects to bring to completion. I am now trying to formulate a further publication of the vast unsifted data we have from this region and on Kuru. It is a big problem for me to overcome the inertia which prevents me from turning out the further papers in the STUDIES OF KURU series and to launch a new series on general FORE and KURU REGION ETHNOPEDIATRICS. Behind all this, I still do want to get out someday my monograph on the Kukukukus. I shall turn to these matters now.

As I work by Tilly lamp light, Kene, Bube, Wanevi, and Koiye sit and watch me while all others are engaged in a loud singsing in the cargo boys' houses. Wanevi remarks, now that the Haga, keiagana group has left us, that Kapekono was "still a young man when he was with us often in Okapa in 1957 and that now he is a very old man...lapoon pinis!"

January 7, 1964...Henegaru, Keiagana - 9:30 a.m.

While Dick was still abed, I dispatched most of the cargo and using only a half-dozen additional one-day-carriers from Haga, we were all on the road by 8:00 a.m. Dick got photographs of the fourth and fifth recovered kuru patients from Haga whom I interviewed and examined too late last night for photography and I visited the Aid Post...which is rotting and much in need of repair. The wisdom of having an Aid Post here at Haga, so close to the Henegaru Aid Post, could be questioned...but Aid Posts bring "civilization" more quickly and thoroughly to villages than anything else the Administration does, and thus medicine and its outer arm serve more than medical purposes.

Everywhere new haus lains have been constructed, usually on leveled platforms terraced from the hillsides, and usually very linearly arranged. The old small Keiagana and Fore hamlets, such as Wagiri hamlets of Kamira in which we were living, are virtually gone, and new round houses bear little resemblance to the old style housing. Men's houses are just about gone!

I sit poised before a great stack of correspondence, a wide program of new publications, and several unfinished papers--on all of this I should work, let alone the work that needs to be done right here in Henegaru during our brief sojourn of one day. It is hard to bring myself to it all, yet I am enthusiastic about getting it moving.

...5 p.m.

I have been down to the junction of the two rivers which flow in deep valleys to either side of the narrow Henegaru haus kiap ridge, the Fumut'yabi, to the south, and the Hirobi, to the north, joining at Kamero to form the Kamero River, as the Henegarus call the Yani. They are both in flood from heavy rains and many of the older Henegaru children were swimming in the stream, for this is one of the few groups in the Okapa subdistrict wherein some of the youths can swim well. However, I saw little real swimming, only bathing waist-deep.

The Aid Post had been situated at the junction of the rivers, far below our haus kiap. It is on a flat plateau of a few acres just at the junction of streams and here kaukau gardens and a neat Aid Post have been erected to serve the six census units censused from Henegaru haus kiap and to serve also the nearer Negibi, Gimi groups. Yampa, the Aid Post Orderly from Kio, in the Kanite, has been here for some four to five years. His Kanite language is very near to that of the Keiaganas.

I learn of a woman, Kivuta, from Kosunuru #1 who had two successive bouts of "kuru" and is now completely recovered. While I was at the Aid Post, they brought to me a man whom my Keiagana informants and my Aid Post Orderly said had kuru (Gimi "uruna") from Yumi in the Mani region of the Gimi. This man, son of an Anieru (Keiagana) mother and a Gimi father, was shaking with severe generalized tremor or rather regular type present even when relaxed, and predominantly of the hands which I have learned to associate with kogaisantampa, the allegedly congenital tremor of the Fore, Auyana, Usurufa and others. His two brothers and he were more anxious to claim, he had "uruna" and this of two months duration and to start political discussions about the forced flight of their Yumi line some 10-15 years ago or more from their homeland to the Lufa side of the Dividing Range than to answer my questions about the disease. They finally established the point that he started with his "shakes" some time after returning to Yumi after their fight to Lufa--and the Native Medical Orderly places this at some at some five years or more. Only after I explained that he did not have kuru did they finally admit that he has the tremor for 3-4 years, but not since youth or childhood. It came upon him gradually without antecedent leg or head pains, fever, acute illness and he has not had convulsions although the tremor is disturbing enough to his gait to at times cause him to fall. There is no history of head injury or loss of consciousness. He can stand for over ten seconds on one foot and walks with semi-flexed knees, tending to slump into a hunched, flexed-knee slump when standing erect, although he can stand stiffly fully erect. On finger-to-nose testing his rest tremor tends to lessen and he does the test well. After examining him and obtaining a history, I asked him to come up the haus kiap with me where Dick took a series of cinema studies in drizzling rain of my examination of him. He has an irregularly, partially sustained, ankle clonus and moderately hyperactive reflexed (deep tendon jerks). He suffers from a Parkinsonism-like syndrome which I cannot further diagnose.

This discovery of such a dramatic case of tremor in the Okapa Subdistrict was a welcome surprise.

When I finally climbed back up to camp I found a glum Dick and a glum cargo line, sleeping and lounging about with bitter expressions on their faces, sulking and exhausted. They had not had enough kaukau yesterday at Haga, and my admonition that they quickly get a good supply of kaukau here at Henegaru upon our arrival resulted not in food being brought but in a row between Masasa and one of the influential luluais whom Masasa was trying to order about in police fashion. I did not intervene, for the matter had gone rather far already, and only asked Masasa to desist. This produced a rather tense situation between my cargo line and the local officials and people which it has taken a while to erase. I have fortunately had Faki, my old Henegaru luluai friend, return from Okapa and help me to get cooperation from his group, and a few women I spoke to personally on my way down to the Aid Post did arrive with food. Thus we finally did get enough to feed the starving line, and then, in windy, cold rain I tried to be very mild mannered and friendly and to gently shame the people into

bringing plenty of food for the hungry boys, who had not eaten enough for days and who were heading for long patrol with heavy cargo loads and eventually several days of bush cutting without population and gardens. In spite of the persistent rainstorms all afternoon the people have finally brought a second load of kaukau and some sugar cane and cucumbers and we have rationed out the supply again, providing adequate food for the morning for our group.

I found the son of the aid post orderly playing with an acorn singing top, and took the polyglot group I was with as informants to check nomenaclature:

|                 |   |
|-----------------|---|
| Moke Fore       | foi'ya....I am a bit sceptical about this |
| North Fore      | kuvei'ya                                  |
| South Fore      | seve                                      |
| Keiagana        | seve                                      |
| Kanite (Kio)    | hagogo                                    |
| Gimi            | seve (asave...according to one)           |
| Moraei Kukukuku | mbumunjila                                |

Masasa standing by me, informs me that "foi'ya" (given to me here as poi'ya by the Keiagana for the Moke-Fore version) is really the small children's name for what adults and youths call "kuvei'ya". They get the name from the "fo" sound the tops make calling them onomatopoeically, "foi'ya".

For the singing spheres, which are not made here but are made south, in the Gimi, they tell me, I get the following list to check, someday, with that I collected in former years:

|                 |                |
|-----------------|----------------|
| Fore            | kuvokuvo (nta) |
| Keiagana        | kufukufu       |
| Kanite          | kufukufu       |
| Gimi            | uhu'uhu (ia)   |
| Moraei-Kukukuku | ulaulanga      |

Finally, I bring up the Wommeras used in the secret taboo by the Kukukuku in initiation and not shown to women or younger boys, and I am met by lack of recognition and ignorance except from a few men and older youths. They almost all deny any knowledge of this, but then, slowly, I get names in Keiagana, Fores, and Kanite for these:

|                 |  |
|-----------------|--|
| North Fore      | puguananu  |
| South Fore      | puguananu  |
| Keiagana        | fugenti (Funu, minimi: the "cry" of the<br>fungenti)                         |
| Kanite          | hugunaru (Funu minimi: "cry" of hugunaru<br>which means Pidgin: "givim pig") |
| Gimi            | hugunaru   |
| Moraei Kukukuku | ndangaiyangale   |

Masasa insists that the South Fore "pugunana" of Purosa is also used in the North Fore for this. He adds that there is a "bigpella tambu long dispella long ologetta meri na pikinini na ologetta bigpella man em i tambuem em stirong!". Thus, no doubt, the rarity of any sight or mention of these in the Fore in the past, and the reluctance to discuss them today!!

January 8, 1964...Negibi haus kiap

We left Henagaru with an additional ten carriers signed on from Henegaru and Hagu by 6:30 a.m. and arrived in about four hours with the carriers, although Dick and I rushed down to overtake them and then rushed up the steep climb to Negibi haus kiap. The Gimi road is under construction with Mert's policemen stationed periodically along it to "supervise" the road work. It is fully built except for many missing bridges after Wanaepa in the Keiagana to here, and goes on with extensively completed stretches to Uvai and down beyond toward Misapi. However we left the road as it rounded the Negibi mountain for Tunuku and climbed steeply to the haus kiap which is now located in a position I suspect will eventually be abandoned for one closer to the road. The road is being pushed furiously, and I suspect that far behind it all is the long-standing report of Jack Baker and myself that the Yani valley was the route to Papua and the river boat navigable Purari river just below its junction with the Subu. Thus, once the road is down to Pai'iti, there is but one further long stretch which would result in linking Goroka directly with the Papua coast by large raft and river traffic down the Purari. I doubt that Mert and others here would ever admit anything of the sort behind their road-building program, but knowing that Bill Seale, the District Commissioner, has been very interested in this route to Papua--and so have officers in Moresby where we have discussed it--I trust that pressure for the Gimi road had been continuously applied from Goroka out!

Rain has just subsided, after an afternoon of heavy showers, and we have distributed the small amount of kaukau and sugar cane and some mumu cooked pitpit and kumu to the line of boys and carriers, giving each a rather small portion. It is not yet dark, and I am still hoping for a bit more food being brought up, and this would get us successfully through to Uvai. Tomorrow we will travel up and around the Negibi mountain to the new Tribes Mission Station which Dick and I have visited for lunch with the family of Dale Palmer, who established the Negibi Mission here in 1956-57 from their Kami station of the New Tribes Mission, and Mr. and Mrs. Queener. The latter were actually our host while we stopped for an hour waiting for a break in the early afternoon rain at the Palmer's new house, still under construction. The Palmers are from the Los Angeles area in California, and they have five children, sons of 15, 13, 9 and 4, and a daughter of about 6. The children are all doing school work here in Negibi, the 15 year old doing 8th grade Queensland standard work, but having found it beyond him, was studying on his own with his mother's help now. The 13 year old is at 5th grade standard. They are both hopeless ignorant of the local Gimi or the local geography and show neither real interest nor curiosity of any sort for the region or the people. The Palmers have a personal friend here from Brisbane with them for a two month sojourn to help them with house building. He is a man with a prosthetic leg, and, with his wooden leg, has come all the way here to Negibi. He tells me that his Brisbane doctor was adverse to his coming here, but that he made the trip well with only small loss of skin over his amputation and the lesion has healed here in a few weeks. He has a chair-stretcher carried in by the natives, but sat on it only a small part of the way in. He says he will use it more extensively on the way out.

The mission station at Negibi is at about 6700 to 6800 feet elevation, they say, and it has a marvelous view of the whole Yani valley down to the mountain near Pai'iti and Misapi. Uvai and Amusa can be seen and the Negibi mountain blocks less than 60° of a 300° view from the high terrace-ridge on which the

mission is situated. This the same mission that is found with the Ayoré in Bolivia (Yanaiguas of Bolivia and Moros of Paraguay) at Tobité, east of the Santa Cruz to the Corumba rail.

January 9, 1964.....Uvai, haus kiap - Gimi Linguistic Group

The Fusa (Husa) and Taroa'ibu groups of Gimi are here at the rest house cleaning the gardens and grounds as I arrived at this flat valley along the Yani in a bend of the stream. The site of the haus kiap was often considered by Jack Baker and myself as adequate for a small aircraft strip, but approaches are a bit difficult. I was told yesterday at the Negibi New Tribes Mission that the Seventh Day Adventists at Amusa in the Gimi were building a Cessna strip there, but have now abandoned it.

I am laboring with a very painful, tightly bandaged thumb. I was at Negibi New Tribes Mission this morning...an hour carrier trip from the Negibi haus kiap on the far side of the Negibi peak from the haus kiap. There, fixing our camp table with a sharp screwdriver, I let the instrument slip and cut through my thumb nail and across the whole thumb tip. I grabbed the injured thumb quickly enough to stop the streaming blood and have quickly taped it so tightly that it is painful, in the hope of thereby getting prompt primary closure of the wound....whether or not I succeed is uncertain.

We descended steeply to the Yani River from the Negibi Mission, but part of the cargo line had already started along the hilly and longer route along the course of the Yani River road, which instead of following closely along the river, is routed far inland over the hills. We descended the Yani toward the Amuraisa haus kiap and reached it exactly at the bridge where the trail from Amuriasa crosses to this side of the Yani. The suspension bridge is none too secure, and I tested it gingerly before crossing. We did not bring the patrol across, however, but instead simply headed down along the flooded Yani, where the waters were racing at flood level from all the rain in the past few days! The walk along the river was beautiful, and the wide swiftly flowing stream a most welcome sight, but one a bit ominous for swimming, for periodically the smooth, rapid flowing river becomes a turbulent rapids, but nowhere are bare rocks visible, for the stream is now too high.

We had large mosquitoes at wind swept Negibi last night, at over 6000 feet. None of them seemed to bite. At Wagiri we were besieged by biting mosquitoes in the evening and especially toward morning, while I was on our unsuccessful vigil for Okake's death and autopsy.

Here there are four Gimi who are deaf and dumb, and said to be longlong, but on further questioning they mean deaf and dumb and not really foolish, and antisocial as most longlong men or women. One is a woman who is married and has had children, one is an adult male who is single, another a boy of 11, and another of about 5 years of age. All four are from Taro-a'ibu, and there are no deaf and dumb people in Fusa

The native Aid Post assistant says he has seen no tremor cases in the Uvai valley.

Many of the crowds of small boys (ari) and post-initiated boys (mai) had red or orange mud painted on their face, chest, trunk or extremities.

The mai all have the bushy hair of the adult Gimi, and some still have their long braids posteriorly....into which bark strips are braided. The feminine of ari is ta'ana, or little girl. Very little laplap is yet used in the valley, small boys (ari) regularly wear pig's penises dried in bracelets about their wrists, sometimes with over half a dozen on each wrist! Their longer, bushy hair contrasts sharply with the Fore.

There is another policeman here from Merts detachment "supervising" road work as the other native policeman is doing from Negibi.

Very little Pidgen is yet spoken here in this valley and only occasionally have we succeeded in getting a good translation through a few youngsters and youths who have been out to Goroka to work.

We have found several varieties of edible mushrooms being carried about. The people have already brought some sugar cane, and promise to bring more food in the late afternoon, after their road work and work at the aid post is finished. They are very friendly.

It was raining at 6:30 a.m. as it had drizzled all night, but by the time we finished packing the cargo at 7:00 a.m. it was raining hard. Dick has been taking cine and still photography outside the haus kiap all morning while I have been typing, and collecting data on the four deaf and dumb subjects in Taro-A'ibu. The small children cluster about and into our house, and we are moderately well situated now, with a good promise of ample food for the carriers this afternoon.

...5:00 p.m...

After a rather good dinner, using up further of the excessive canned goods we are carrying with us on this patrol, I went down to the Yani along the trail to Amusa to inspect the bridge. The local people were already working a bit on it, for it was really quite rotten and unsafe for carriers. Pentampa immediately pitched in and began to add new kanda and new vine slings and to strengthen all essential portions of the bridge. Of the group of boys I had with me, only Yandobi and Pentampa were of much real assistance and they did the major portion of the bridge repair. We left it in pouring rain a half-hour ago, and the bridge is now secure for our carriers. On returning here the same old problem has confronted us. A modicum of kaukau and sugar cane, but no really adequate supply. We are now waiting for further food to be brought, but it is cold and raining and darkness is setting in. The luluai of Taro-A'ibu has come with a small gift of sugar cane, and has now gone off to try to get us some further kaukau. The local Amusa-Gimi dokta boi has been here since 1960. He tells me there are a few cases of swollen abdomen which he calls "berriberri" and which are more likely cirrhosis of the liver. There are also a few lepers here, all under treatment at Okapa but back now for a "Christmas vacation". Aside from this he denies any other severe disease in the group and insists there is no case of tremor.

We are not doing any real work but simply moving our patrol alone leisurely to Misapi. I have not found any kuru here and aside from the deaf and dumb people, we have done no medical studies at all.

Until I see just how the food situation shapes up for the carriers, I cannot decide on the rest of the evening, which I would like to devote to reading, study, writing, and eating in leisure. At Negibi, a lad of about 12 from the hamlet of , named Nimisa, was the only youngster I found responsive enough and got to know well enough to consider for our group should we do future work in the Gimi. He spoke very little Pidgin.

With a painful left thumb, cold and damp, and without any marked accomplishment behind us other than a desultory collection of further data, since the fortunate discovery of the new patient with a tremor-syndrome at Henegaru (from Yumi-Gimi), I am not in the highest of spirits and hope we have an unlikely break in the weather for a few days to "dry out" our patrol and raise our spirits.

January 10, 1964.....Amusa-Gimi Linguistic Group

We did not leave Uvai as early as we might, for I had to sign on another eight carriers and pay off the ten Henegaru carriers who returned then to Henegaru. I also had to buy what further kaukau we could, and Dick and I both made a trip to the nearby Husa (Fusa) village to ask for more sweet potato. Before we left a few small bilums of kaukau were brought, including one small tin of cooked kaukau, and the boys promptly devoured these. I was still in a much dejected mood, one which for numerous reasons clearly evident but still unresolvable, has engulfed me for the past two days and threatens to become rather chronic on our patrol. It has cut down my efficiency considerably, made me irritable with the boys, and brought my interest in our patrol to a very low ebb.

I finished a rereading of Sodom and Gomorrah of Proust's "Recherches sur le Temps Perdue" and then read two short stories by Camus which I had also previously read in French. In fact, that I got well into each before recognizing my previous reading speaks poorly for my comprehension of my earlier French reading. Now, in the translation, I enjoyed them again. But the reading was only designed to divert my dejected spirits...and only temporarily did it do so.

It was only after Tutabure came with an axe wound of toe that I began to again fall into acceptable relationship with the boys. Koiye, who sensed too clearly that I was not in a very receptive mood to any of the boys, came in with a kunai cut which looked more like a bid for sympathy than first aid, but I attended it aciduously and again restored a modicum of rapport--but my mood is hardly sufficiently elevated to maintain good rapport, and I am thus a bit worried about the next few days. It is, in reality, an amusing situation, but one involving others rather seriously, especially if it should bring me to abandon the efforts needed to sustain the patrol and its objectives.

Here in Amusa there are two women with kuru, both rather early in the disease, but as to their stage of illness I have conflicting reports. The Aid Post here is not a strict government station, but rather a Seventh Day Adventist Hospital conducted by a Medical Orderly who is a Seventh Day Adventist native missionary. He speaks a bit of English and is from Kerema in Papua. He has no patients of medical interest in the hospital, but a man who had a fever, allegedly malaria, and a boy with a mild burn of the leg.



We were told that there was no currently active kuru in the Uvai-censused units: Agibu (pronounced A'ibu or Agibu bu local gimis), Taro-Agibu, Husa (Fusa), or Beha. I did not press the matter and the negative report may not be reliable.

The bridge just beyond Uvai which crosses the Yani was well repaired yesterday and we crossed with all the cargo in about a half-hour. At that moment, when the last cargo was across, I was so fed up with the crowd about me that I simply crossed the river, spoke to the luluai and Mert's policemen who were on the Uvai side watching our crossing, and shouted to the cargo carriers to go on while they reluctantly took up their loads. Dick and the boys also expected me to join them, and instead I simply headed up the trail back toward Uvai. I gave the line a good half-hour to an hour start and then, totally alone and with an empty trail, walked slowly and quietly and leisurely through the wonderful morning along the east bank of the Yani, listening to birds, insects, and the rush of the water...which is not a roar, for in flood the Yani flows rather smoothly, unlike the Lamari to the east. It was the first walk I have had on my return to New Guinea where I was really alone and where I was able to pause, think, walk back to look at a fern, to observe a dead tree, to study patterns in the mud, and to simply daydream. Ever since my return I have been surrounded by the boys and carriers, Dick and other Europeans, are constantly engaged in the tedious task of relating and of establishing or sustaining relationships. This task, which I enjoy so much of the time, has now suddenly seemed so futile and so endless that I found suddenly an elation akin to sensual gratification simply in getting away from others and looking quietly at the Yani River in the flood and at the rain forest, alone. The native himself sees his environment very often from this splendid and awe inspiring vantage point, but whether he sees it as awe inspiring and majestically splendid as I now find it, would be hard to determine. Natives may often find themselves alone in their bush, but more usually they are in groups, and surrounded by their family and villagers...rarely if ever do they have real privacy, and I find, to my surprise, that they take far fewer opportunities to be alone and in private in their majestic wilderness than I would myself. I took my time in the leisurely stroll to Amusa, and on reaching the second bridge across the Yani, over a mile below the one we rebuilt yesterday, I found it a strong, adequate bridge which would have served well had the one we rebuilt not been available. I crossed it and investigated again the western shore for a half-hour and then returned and went on slowly through Tarotu gardens along the gently-smoothly but very swiftly flowing Yani to Amusa.

At the Tarotu gardens I met families coming for garden work. Here they also have some mature coffee plantations. I asked them to bring us food, later in the day at Amusa and they indicated that they would. I was able to quietly contemplate the problems of kuru research, to think over our experimental approach the huge gaps in our epidemiological work which we cannot fill, not because of any problem in doing the needed type of work with the natives, but rather because to attempt to do it would be taken as a serious affront to the Department of Native Affairs and the administration and to Australian efforts in the same direction which are faltering and inadequate. We have not yet really adequately explored the edocrine chemistry of kuru, nor had patients on metabolically controlled observations with urine and blood collections and dietary control for steroid and other hormone studies. We have still to do many immunological investigations with liquid nitrogen frozen brain material and serum, and we have only begun to conduct the tedious and varied types of virus isolation attempts which a search for a slow virus, a "temperate" virus, or a transmissible yet "genetically related" particle such as that which the scrapie virus may be. Thus, I spent a good half-hour sitting beside the Yani, planning further work and spotting the great gaps in what we have done and are doing.

Here at Amusa I soon learned that the bridge below the Seventh Day Adventist Mission and Aid Post and the haus kiap was just torn down to be replaced by a new bridge which today is just being built. We were greeted with a fine and friendly reception both by the Papuan Kerema missionary and by the local Amusa people. Most of the Amusa villages are across the Yani, but a small group is settled here about the mission. We sent the boys out to Rarotu gardens and Amusa villages to ask directly at the hamlets for food. They have been reluctant to do so, being embarrassed by a direct plea for food, and trusting more in a show of "force" by posing as government patrol as though they were police-bois. I have admonished them about this style of behavior on several successive days, and today we finally succeeded, they have been brought to a state of modest hunger, in getting a really adequate coverage of the surroundings hamlets for food and a properly intimate contact with the people. The result has been a very ample supply of taro, yam, sweet potato, bananas, kumu, sugar cane, and peanuts. Dick noting my dejection, has himself taken on a bit of the responsibility of cajoling for food, tramping about for food, and admonishing the boys to seek out food.

Here at Amusa are several boys attending the school at        and they speak excellent Pidgin, a few words of English, and have finished second or third standard already. Several of them have clung closely to me all day, but I could only court them and their assistance in a desultory fashion, not being as enthusiastic about it as I usually would be on patrol. I sat down watching the bridge-building, and read through Frank Burnet's speculative paper on kuru which represents not a thing that we have not previously discussed at length, but is cloaked in a big-sounding theoretical terms and purports to use extensively McArthur's new demographic data and Glasser's new data, but has little to do with either. Thus, age-specific death rates are plotted on a log scale against the log of age and a near straight line results, he claims (all from the cursory data of McArthur), and this he glibly dismisses without figures or adequate attention to the data as evidence for a possible somatic mutation mechanism underlying part of kuru pathogenesis. Long ago we have wondered whether the astrogliosis of kuru might not be an uncontrolled proliferation rather than one stimulated by degeneration products. The whole slow virus project in our section ostentatiously labeled a "Section for the Study of Child Growth and Development and Disease Patterns in Primitive Cultures".

January 11, 1964....Misapi-Gimi Linguistic Group

We have arrived here after a late start from Amusa. Before the night was on us yesterday the luluais of various Amusa-censused groups had brought, with their people, a more than ample supply of food. It was really the first time since Keefu that food requisition and purchase was vigorously pursued and successfully answered. In fact, we have left some 20 pounds of smallest kaukau unused, still carrying with us two pails full of kaukau in the event food would be scarce here. However, we have had the good luck to arrive only a matter of an hour after the Okapa kiap (Patrol Officer       ) had passed through on his way from Pai'iti to Takarai, conducting the South Fore census. Thus, he surprised the assembled people by not stopping for the night, but going right on, after pausing for his cargo carriers to eat only the sugar cane of the big supply of food they have brought for him. Thus, we have inherited the kaukau and onions and remaining sugar cane he left behind and I have already purchased some additional food to make the day secure!

The late start was occasioned by the fact that our largely Seventh Day Adventist carrier group from Mugaiaimuti and Agakamatasa made a bid for the day off...I compromised, letting them stay for the morning church service and taking the new Amusa Gimi carriers and half the line on with me earlier. After crossing the excellent new bridge just constructed yesterday across the Yani, we climbed and traversed the hill on the far shore to reach the road which is under construction. There, the two women allegedly sick with kuru from Uvebi hamlet of Amusa were waiting for me with their husbands and children, as I requested they might yesterday. I interviewed them, obtained an anamnesis, and examined them. Neither had diagnosable kuru at present, neither showing anything but probably normal slight shivering tremor, neither showing ataxia, with well executed foot stance on either foot for over 10 seconds without "clawing" of the toes, nor any disturbance of cerebellar function test, knee-shin test, or of speech. One is said to have had two "bouts" of tremors and slight ataxia during the last month, and the other "one attack" about a week or two ago. What has been thought to be kuru in these cases is difficult to decide. However, since Amusa is very closely affiliated with Takarai and Oriei in the Fore and is a center of known Gimi kuru, one must take all reported cases seriously...and here in November a youth of about 15 years, No'one died of kuru. He is interesting in that although his parents are said to be purely from Amusa, his mother died some 10 years ago of kuru at Yasuanipinti where his father also died. Their soujourn there with the Fore as well as his visits there reflect, certainly, family ties that I have not unearthed in my brief genealogy. No'one was reared in Amusa from about five years of age (when his mother died of kuru at Yasuanipinti) to the age of 15 when he died here of kuru. The two women, Nimi of about 35 years and Ulalubl of about 30, are both pure Gimi women, but again, from the Fore-intermarried and closely Fore-associated groups. Interestingly, however, Nomo's maternal grandmother is from Maiva on the Lufa side of the range, fully outside of the "kuru region".

I left a note for Dick, who was following with the second detachment of cargo carriers--the Seven Days--to take still and cine pictures of the two women and went along the track through the bush and brush-cleared country between Amusa and Misapi which has not yet been made a roadway until we emerged at Eteve grounds of Misapi. The Eteve people are really Ketabi...and I am surprised that I forgot that Etebe is merely a Gimi way of saying Keteve or Ketabi! They all know that they are of the same affiliation as the Mobutasa Ketabis of the Awa, the Ketabis of Purosa, Awarosa, Intamatasa, Oriei, and Takarasa in the South Fore. Thus, they welcome the manu Ketabi's in my line from Anua on!

As I arrived with the advanced carriers at Misapi I was surprised to find the whole Misapi community assembled, a stack of food already piled on a platform, the grounds all cleaned, and some six luluais present. The kiap's passage accounted for everything, and we have benefited accordingly. The luluai of Eteve had a formal request to present to me in the form of an ultimatum...to the effect that the dokta boi, Yameibi, wanted to have his Aid Post with them at Eteve and would have it there and that they would not permit him to go back to Pai'iti. It appears that the Somai people are censused from here and tend to come here to see the government, although they reside in hamlets immediately adjacent to the Pai'itis near the aid post of Pai'iti, to the south of here. Yameibi himself arrived later to act noncommittal about the matter, saying that it was up to the doctor at Okapa, and not to him. He is himself of the Intamatasa Ketabi line!

We have thus, with good fortune, arrived here in fine weather before the first afternoon drizzles, washed our dirty clothing, dried blankets in the sun, and purchased ample food for the patrol. The Amusa people were eager to carry for us here, and we had no trouble getting carrier assistance. I now type in our house crowded with two dozen Gimi luluais, tultuls, adult men and youths, and a sprinkling of mais and aris. The Gimi initiate the boys from ari to mai at anywhere from 6 or 7 years of age to 13 or 14. The shutim nos procedure they term "apina" and the ari is thereby changed to a mai. They fasten a thick bark belt with a masculine knot--this is called "arebo"--and hair is braided with strips of bark " 'oi" and they have a period of seclusion in the men's house which was about five days when we were here in 1957, but is now rarely over two days! The ceremony is equivalent to the "andamaneh" of the South Fore. The "ibona" or second-stage late adolescent ceremony of the Fore is not used in the Gimi. The equivalent of the mai producing ceremony for girls in the Gimi is called "ibiyawaia" through which the "ta'ana" is converted to a "waia".

While I have been typing the boys have found a five to six foot snake in the kunai roof of the toilet house and having captured it, are screaming as they run about picking the snake up on a stick and throwing it at each other. It is reputedly non-poisonous, but the fright it excites and the shrieks are every bit as excited as would be the case with an American group of youngsters the same ages.

Dick has just announced that we have lost the cinema record of the two "recovered" cases of "kuru"--if they ever really had kuru?!--for in checking the Arriflex, he finds that the film had jammed as it has once before for him and twice last year for me. He does have still photographs of them, however.

Yameibi tells me that he has sent two with word to Hero (Haya or Haya, Hureere, Aiyumosu). Hero is apparently the name of the line while Aguane is the name of the "place". With the Heros already informed of our coming and with, apparently, plenty of volunteers from here to come with us, we should be able to make the trip without trouble. Yameibi is also coming with us as Yainta did on my last trip. Reaching Hero should be no problem. Finding Iare and finding any people will be quite another matter.

We are finding the Gimi wonderfully hospitable in spite of all the visits and European contact and excessive patrolling which has gone on since our earlier visits in 1957.

One old man is still wearing a neatly decorated bark belt, but I see no other such belt about at all! I have asked to buy such a belt, but none has been produced, everyone claiming that they do not use them any longer.

January 12, 1964....Pai'iti Haus Kiap

We have arrived here after a muddy trail of about three hours to find a warm welcome from many people who were with me on previous patrols, particularly the last one to Heroana, and the two luluais Somai (Gimi) and Pai'iti (Fore). I had rushed on ahead with a small group of the boys. Koiye, who remains resentful of the sudden withdrawal of special attention which I imposed a few days ago, no longer keeps up with me on the trail, avoids the work at the house and has, as a

result, lost out on my plans to bring him to the coast or Taipini. Realizing this, he has rather bitertly abdicated his duties and services. Similar tense situations prevail with many of the boys whom I have failed to humor as I usually do, and who have, as a result of my lack of special humoring and attention, slowly become disenchanted with the patrol. Today, after our arrival, Dick admonished Anua and Wanevi and the others to go after food--I not having had time to inform him that prospects here were very excellent and that the boys knew the people well and were not worried. His complaint and peeved instruction, no different than mine at times, was taken very hard by Anua in particular, as well as by the other boys, and they soon threatened to leave and "quit", including the Purosa carriers, claiming the whole matter on Dick's yelling and kros and yet certainly reacting as much to my several days of disinterest in them as to the incident they picked to signal out as the major offense. I had already purchased some food, and seeing other food coming, I called a meeting of all 17 boys on patrol, forcibly ejected all the carriers and would-be-on-lookers, and discussed the whole situation with them. After a half hour of "explanation" the whole group of boys agreed to stay with us, and vented their minor complaints and expressed their minor desires, and I gave them all as much individual attention as I could. Later in the day I distributed to them all new trousers from the stack we have been carrying, and they are all very satisfied.

However, the carriers, particularly the Mugaia muti and Wanitabi schoolboys who all attend the Keakasa Seventh Day Adventist School, approached me with the story that they had killed a local Keakasa pig which had been invading the schoolyards. The luluai of Keakasa had not been assuaged and had threatened to eject the school from Keakasa land. Thus, the teacher left for Goroka, not sure that the school would not open again, after having told the boys that he would get them to the SDA school at Kainantu if anything happened to close down Keakasa. They do not want to miss out. I thus agreed to write a letter for Abaka to bring to the teacher, asking that he send word to us at Pai'iti as to whether he wanted the boys a bit early--i.e. before the 26th. This was satisfactory, but later they were again disgruntled, afraid of the tales of the long bush between us and Hero, and all decided to return to Purosa tomorrow. I told them I was sorry, but would let them off without anger. Later in the evening, Tutabure (Tutavore, as he writes it now), came and when no one else was about told me that one of the old Pai'iti men had frightened all the Mugaia muti boys so that they were prepared to flee in the night. He had sarcastically said that the Mugaia mutis who were afraid of the big bush could go without loads, and that they would "take care of them in the bush". This they have interpreted as not a friendly jest, which it largely was, but as a threat from the traditional enemies, the Pai'itis, whom their fathers have all warned them against. We have called in the dokta boi, Yameibi, for explanation and he points out that the jesting old man was from Somai, not Pai'iti, and thus was not of their traditional enemy line. They have gone to sleep, but uneasily, and I do not expect they will remain with us tomorrow. The boys--all of them--are staying, although the Kuks have joked and threatened they will be off. Sufficient counter joking and jest and jibe will bring them to remain!

January 13, 1964....Iyavipi ground (former hamlet)-Somai, Tsoma River Valley-  
Camp No. 1

We have arrived at our camp site at 3:00 p.m. after an 8:00 a.m start, and some of the slower carriers only arrived at 4:00 p.m.. However, the fastest carriers arrived with us or shortly thereafter, and among these were the latest to start--at about 9:30 a.m.! Thus, the trip here is a good 6 to 8 hours carrying time, and for the best of walking requires  $5\frac{1}{2}$  to 6 hours. We have arrived through the overgrown former site of the main Somai hamlet of Veiyavipi and to the Hakirabirai, Ebureve, Maiopaneve, and Amanu'utai former Somai hamlet sites. We have had several brief drizzles, and heavy rain threatens, but we have not yet had any real rain, and our camp is well underway. We are roofing with kunai and the frame is constructed but no kunai roofing has been laid.

The luluai of Somai is with us--one Berebu. This morning, after sending off our new carrier line of Pai'iti men and boys, Wanevi, Anua, Yameibi, and Masasa and I went down to Somai hamlet to argue and beg for carrier help for the remaining 6-8 carrier loads. The Somais have many youths away at Kainantu and elsewhere on labor lines and few men in the village. Finally, the luluai agreed to come with some half-dozen women to carry kaukau to our first camp. Whether they will help us further remains to be seen. We did get several boys and youths from Somai to help with the cargo also, and they may, with two strong men, help get us through to Hero (Aguana).

The women carried the huge bilmus of kaukau and the table and camp chairs and our  $1\frac{1}{2}$  hour late line traveled rapidly, crossed the Ha, then the Omoita, and finally the Ni'idama Rivers or streams (the Ha, is the principle drainage) and climbed through bush onto the mountain, called Omoitabi, which separates the Ha and Yani valley from the Tsoma valley. Hohondamatube is the high ground on the mountain. All these names Barebu gave me on our way here.

...6:00 p.m...

We have been hit by heavy rains, and the roof holds, although leaking profusely. Now, in a brief lull in the rain, the boys are off for further loads of kunai and we may before darkness have a chance to patch up the roof and make it near-water tight. The six women and two girls with us have been paid for their help in carrying and getting kunai and they are off down the hill for a small shelter hut where the Somai people sleep when they visit their pandanus gardens and hunt or gather food here in their abandoned homeland. We have a huge house of about 18 x 24 feet in size and the cargo carriers have erected another, somewhat less luxurious. We have ample firewood and water, the latter a half hour round trip from here, and may soon be able, in a now gentle drizzle, to finish our roof to a satisfactory rain protection. I am, in fact, typing comfortably in a continuous drizzle without any drop of rain touching me.

Dick was suitably impressed at the know-how and sudden burst of work which the boys showed on setting about the erection of our camp. We have not eaten anything since morning, and although he had a breakfast, I had absolutely none. On the trail I finished a half bottle of Kuwara claret wine we had left from last night, and I ate a few bites of cooked kaukau. We had a bar of chocolate with nuts at 5:00 p.m. and by 8:00 may be eating supper. I find this is a

refreshing type of existence, but Dick looks a bit distressed at the delay in eating.

We have tomorrow as our most critical day of travel, and if it is with an early start and speedy progress to a distant point from here, near Hero, we shall be very fortunate. We need a good day again, for no rain until after 5:00 p.m. is really unusual in this rainy season.

The boys have worked unusually well and diligently and with bed sleeves already fastened well during my typing and a cook fire started and the roof patched up, we are in a fairly safe and pleasant camp.

I worry about bridging the Soma River until it is done, and hope for as easy a crossing as on my last trip.

The luluai, Barebu, will return to Somai with the women and girls tomorrow, and has promised in 6 or 7 days to send two big loads of kaukau to our camp here and leave it fastened to the roof for our return.

I have just been told that the Somai people know the Haupi people who are "Tavia" "ina" ("Kina" in Fore), or Papuana, and they are of the line or Urahau, my friend from Weme. Thus it would be possible to see some of the Weme people here down the Soma, but they insist it is a trip of five days, although I suspect that three would do...perhaps even two!

Iare is a two day (one bush night) trip south, down the Pio from Hero, some of the older Somai people tell me. Hio is said "Pio" by Fore and Ha is said "Pa" by Fore. This changing of the Gimi "H" to "P" in fore, like the Gimi glottal stop to "K", is one of the major differences between Fore and Gimi. Making these transformations, one has the Fore word from many of the Gimi words.

...7:30 p.m...

Camp is cozy and comfortable now, with four fires burning and over half our line—including most of my boys—is crowded about the fires cooking kaukau and preparing their beds. The dokta bois are building an elevated platform, and in this "status-bed" they proclaim their "difference". The others are making usual ground beds about the fires. The cooks are preparing a good meal using wine, tinned fruit, and dehydrated soups, pickles, and Gorgonzola cheese, all to cut down on our food box weight as far as possible.

Before we left this morning, Tutabure and Taraku, his brother, and many of the other Mugaiamuti and Purosa boys who were all returning to Purosa and abandoning our patrol here, lingered about undecided as to whether to stay with us or not, and let the others return. They finally left.

...8:30 p.m...

We have just eaten...soup, herring, cheeses, wine, Milo, crackers, pickles and all...and we are now surrounded with five house fires in the periphery of our huge camp house. The rain has stopped, and the boys are eating, joking, and lounging, all far better in spirits than a few hours ago, although today has been a remarkably successful and pleasing day in spite of the difficulties of an early start.

When Tutabure, Taraku, and a few others were very hesitant about whether to come with us or not, I could have turned the scale by sufficient attention to them and cajoling, however, I decided instead to rely upon our new Pai'iti and Somai carriers and guides and thus we are left with only my boys and the new Somais and Pai'iti and Agusi (Koka) from Purosa and Iginemi from Mugaiaimuti (as a result of insistance of his brother-in-law, Wanevi) are the only Purosa-Mugaiaimuti group who have stayed with us after 16 left. Two Kamiras and two Keefus have remained.

Dick has made a moderate cinema record of camp construction, however, we have missed photographic record of the vast view across the whole southernmost Fore from the final mountain pass before dropping to the Somai valley. From here we looked across Yasuwanipinti (Orie), Kasarai, Umasa, Mentilasa and on to Purosa and Mugaiaimuti, a view which we enjoyed from the brief space of cleared timbers on this summit trail. We took a small bush trail requiring extensive cutting and clearing for the cargo to pass to get to our camp, and even our Somai guide lost the trail a few times in leading us down it.

Along this trail we passed a wonderful bower bird nest, so beautifully clear and "classical" that it appeared almost artificial. Dick has taken still photographs of it. It was only located a foot or so off the trail. Later along the trail my Somai youth guiding me, Oiroaba, a lad of about 15, paused to lift two pink, brown-speckled, eggs from a small nest. They were hardly 2 cm. long, and we broke one in handling them. I returned the unbroken egg to the nest. The bower bird that made the nest along the trail is called okena or ose in Fore and ose in Gimi. The eggs were of the bird called iresesa in Fore and sire in Gimi.

January 14, 1964....Omoiuyarai-Camp No.2

I am typing under a vast roof of bark, pandanus leaves, wild banana leaves, various types of palm leaves and fern fronds, and tree leaves in a huge house we are still building. It is some 24 feet wide and 45-50 feet long and at least 15 feet high. This huge single house for our whole patrol line of boys, carriers, and ourselves is the most efficiently executed and successful effort of our patrol...Dick is impressed and even I am impressaed by the zeal and skills of the boys, especially, by their boundless efforts. The carries took it easy, but we were at our last camp before arrival there on the last trip, and we have already got our house built by 4:30 p.m before rain has hit us. The boys and Dick and I all arrived here at about 1:30 after seven hours of trail and the carriers have only just all arrived, after some 9-10 hours of trail.

The carriers have been exhausted, some have abraded shoulders which will require careful attention this evening, but all are pitching in to finish the work of camp construction before it rains. Thunder and rainclouds are about us, but no rain has hit us all day...a rather remarkable bit of luck.

Today we broke camp very early, arising before sunrise while it was still dark, distributing the two large bilums of kaukau which we carried here yesterday. I am not sure how much food the carriers have preserved, but one good meal for each was in the kaukau we distributed today. Along the trail many have collected large supplies of mushrooms, the trail having been a mycologist's paradise, with beautiful stands of fungi scattered along it at frequent



intervals in a profusion of species. Only one type seems to be the favorite edible mushroom. Pusi means mushroom in South Fore and uga in North Fore. Uwa is used in the South Fore for all mushrooms, also, but pusi is apparently synonymous. Kuwa is the South Fore name of the edible mushroom collected today along the road. Mabi uga is another name for the red-capped gill mushroom the boys collected today for eating [indagala is the Kuk (Moraei) word for mushrooms]

We found another bird nest along the trail with two eggs, white with brown speckles, about 2 cm. long, and many birds were singing in the early morning as we slowly cut trail through kunai and brush down toward the Soma river. The site of our crossing was the same as previously, but the few logs resting against the huge boulder in the center of the stream were inadequate for a cargo bridge, and we had to spend a half hour repairing and revising the bridge for our carriers. Just beyond this and as far as our camp of my last crossing from Somai to Hero, we had to cut track through extensive thickets, beyond this we crossed a half dozen streams, climbing ridges and dropping again to the streams, and three of these were really large; along one there were wonderful swimming holes, one with blue water over five feet deep...at least. Had we not been in a rush, it would have been fine to swim, and on our return I hope we have a fine day and that the hour permits taking time for swimming. The houses will be awaiting our arrival and we shall not have hours of camp construction before us each day.

Dick and I have just tried the pink mushrooms cooked in bamboo, and Dick thinks they are the best food he has tasted in ages. They are certainly fine, and I lived largely on mushrooms so cooked, and also fried in butter, at Moraei for several days last year.

Today everyone seemed to pitch in to the work of making a camp without exception, and I was amazed to see how hard they worked. Yoyo'e disappeared, and late in the afternoon, when I was walking back along the trail down the mountain to see what had happened to our delayed cargo line, I heard axe work far off in the bush and shouted to learn who it was. Yoyo'e replied, and I slowly found my way through the ferns, palms, and bamboo to where he was working on a huge tree well over a foot in diameter which he had felled alone...one of the largest trees we have ever felled in our camp making. He had already stripped off four successive sections of bark each about six feet long, and three of these continuous around the whole trunk. The immense tree had fallen so that a 20 foot section of trunk remained suspended above the ground by the uneven terrain--I was so impressed by the grace and precision which Yoyo'e showed in this work that I rushed back to our camp in construction to ask Dick to photograph it in cinema and still. On the way back to camp I carried a six foot long heavy roll of bark from the tree and managed the steep and slippery trail up to our camp. We returned with Dick, who was disturbed by all my suggestions and instructions, for photographing the process of bark stripping, and while Yoyo'e and Injuriwambio stripped further total circumferential sections of bark Dick took still and cine pictures, taking less cinema of the skilled precise work of the two Kuks that I would have taken. Dick was peeved by my "kibitzing". He has suffered from too much tea and wine (he thinks there is a trace of caffeine in Kuwara claret!) and a few days ago could not eat further without Drambuie "antidote" for his caffeine reaction. Today Dick has been depressed and although he seems to enjoy the patrol, he has

obviously fallen into a psychological frustration in the past two to three days as I have slowly emerged from mine. Koiye, who has reacted seriously to my rejecting of him, has slowly returned to his previous solicitude--perhaps not fully so--- but Dick's depression and exhaustion (caffine and wine and early morning starts without noonday meal) was suddenly aggravated at supper either by my searching him out of the bush for supper or by my discussion of authoritarian, "totalitarian", "analcompulsive", efficient and "material" personality types--in which I lamented their disappearance and their scarcity in modern America and France where they are regularly disliked and replaced by more "sensitive", hedonistic, "consumer" personalities. Yet Western civilization depends upon them. Dick--always a bit like Jonathan Whittenberg in his fear and dislike of compulsive, efficient, authoritarian personalities--suddenly became further restless and depressed and walked off without a word to return to try to sleep.

The smoke-filled house shared by the boys and us gave him too heavy a dose of smoke yesterday and again tonight--yet I suspect a lack of satisfying identification with the patrol, the individual boys and carriers and my over authoritative assumption of all planning has left him dissatisfied.

We are camped and bedded down now at about 9:00 p.m.. I have given 0.5 gm. of chloroquine and a stick of tobacco and a large double handful of peanuts to each member of our group and we are ready for an early takeoff. Rain and leaks in our roof could ruin or night and the day of trail tomorrow--but the sky is still clear. We have treated most bruises, cuts, and sore shoulders and with good luck will be on the trail by 6:30 a.m. again!

January 15, 1964....Hero, Aguané - Haus Kiap

A staggeringly difficult day is behind us, but not, I fear, for half of our cargo carriers. They are not in and it is now 5:30 p.m...we were on the trail at 6:45 a.m. today with cargo starting directly behind us. Thus the carriers with the heaviest loads had an 11 hour day of atrociously difficult and continuous carrying and they are still on the track! Dick and I, Bube and Injuriwambio started out at a very fast range which is crossed between the Soma and the Pio. It rises to a dripping rain forest with heavy moss covering. It is not the full moss forest of 9,000 to 10,000 feet but must be above 7,000--perhaps above 8,000. We climbed into this rainforest and traversed a long ridge to the very summit, in a climb lasting perhaps one to one and half hours. It was a real marathon of a climb, all at a fast pace, and Dick set a lead pace I could just barely sustain, falling behind whenever it got level, recovering whenever he paused for bush clearing by Injuriwambio before him or whenever it got very steep, for in steep climb my speed is good, but in steep descents and rough, tricky footing on more level sections I am unable to travel as fast as Dick without slipping or entering a dangerously foolish race in which I can easily twist an ankle. Later we raced down steep descents and through landmarks I remembered from the previous trip, and finally, after a very complicated set of ridge routes, we were dropping down into the Pio valley with the sound of the Pio below us just audible. The four of us--Bube, Injuriwambio, Dick and I--all met...Dick pausing for Bube and I to catch up at times...and crossed the Pio bridge in quick succession over the narrow cavern-like gorge through which the Pio rushes, and then climbed slowly--forced to rest several times--the steep ascent, which may be over 1000 feet, to the summit on which Faya (Haya) is located. We were all fully exhausted from the too rapid and too strenuous 4½

hour continuous exertion over a really difficult trail. Our racing speed could not possibly be even halved by the carrier line, we realized, and this has been born out. We rested about Faya for an hour, walking down to the village and then over to a second, newer hamlet. We found Faya entirely deserted with houses all boarded up, except for one old man and three youths. With difficulty at interpreting, we learned that the kiap was at the haus kiap far north, in the center of Aguane, and all the Faya people had gone up to see him. After waiting for the Faya boys to fetch sugar cane from the gardens and quenching our hunger and thirst on this, we set off for the haus kiap of Heroana, which the kiap insisted be moved far north to save him needless further walking down and back after the already too long trek here from Uwagubi. I recalled that it was a long trip from Faya up to the haus kiap, but it proved to be far longer than I remembered, taking us some  $1\frac{1}{2}$  hours to walk--and certainly over two hours for the carriers! It is a very muddy, slippery trail! This final  $1\frac{1}{2}$  hours gave us a fatiguing six hours of trail, and we were extremely exhausted on arriving. Other boys of my line have struggled in at 7-9 hours of trail, but it will be over 12 hours of trail, I fear, before the last are in! Bananas and a few small tomatoes quenched our thirst and eased our hunger, and here at the Hero village we learned that the kiap was NOT here, but only expected today, tomorrow, the next day, or next week?? However, the Faya people have all moved up to a hamlet further north, and left their older hamlet approaching the kiaps "political education" patrol visits for the pending elections. We had no choice but to continue on to the people for in deserted Faya we had neither food nor shelter, and to build camp there without the people and food possibilities was not at all wise. Just below the haus kiap at the new Faith Mission (of Ben Wirtz from Gono) station of a Native missionary from Mengino No. 1, the luluais and tultuls and many men and boys and women of Hero met me. Here we found two school boys from the Gono Mission who have been the first school boys out from here, and these two provided the first really good transactions we have had. They continue to help us.

Injuriwambio, Yoyo'e, Adjetmaga, and Bube were all so tired when they got here that they were rather bitter, and in great hunger. The Faith missionary quickly boiled up a pail of kaukau for them and they then brightened up a bit. But as various carriers and boys have arrived, they have been glum, with sore feet, and near the end of their stamina.

The local people have complained that they are near the end of food supply from their gardens, and are short of kaukau, pending the maturation of new gardens. With this I feared we should be very short of food but they have brought in ample food. I had no choice but to pay for it with six pences, and thus have spent more than we usually do for food, but nothing was available but these six pences and the cargo was not in. With a fine supply of cucumbers, beans, pitpit, sugar, and kaukau now on hand we have been able to quickly restore the spirits of each carrier who has arrived, but the last with the heaviest cases and without help, will be really bitter and I may have trouble assuaging their injured spirits. It was far too long a carrying day and the trip here is really too strenuous for three carrying days with heavy loads. It will be very fortunate if we can recuperate fully by tomorrow. Iare village south of here is known to all the Faya men, but everyone insists it is now deserted, and that the people have moved closer to Karamui at the insistence of the kiap. The village of Haupi, a Weme-group living on the lower Soma valley, is a day beyond Iare and they remain at their site. However, the trip down would be a six day round trip at least, and food here is scarce. Thus, whether

we shall try to make the trip or not is undecided. It would be difficult to leave a large cargo line waiting here, for food would be scarce for them. Finally, whether the kiap will arrive today or tomorrow, we do not know. Before he arrives and does his lecturing no one is willing to go south to Iare with us.

Masasa has just arrived carrying a heavy cargo box and screaming at the other boys, now relaxed and playing, for their unwillingness to rush back and help carry the cargo loads. He is right that the Kuks and many of the boys have rushed in with minimal loads and now sit about. He has with his angry deprecation, managed to throw the line of well fed early arrivals into a sheepish, emarrassed pose and I have just now dispatched the older boys such as Yoyo'e, Adjetmaga, Andembitsuo, and Kene to help with the loads. The local people have been helpful, and a dozen youths have rushed down as far as Faya to help with the loads, but they have taken largely the loads of the strongest carriers and also the lightest loads...the heavier loads are still behind without help, and I know that the carriers of them will be furious.

...9:00 p.m...

All carriers in, and all jovial, satisfied, and well fed! A remarkable beast-like performance of 13 hours of work for the most fatiguing and difficult sort, and painful muscles and feet as a result...and a huge danger and risk involved as well in carrying the heavy loads over slippery logs, cross the slippery Pio River bridge, and down cliff-like muddy slopes and through wet, rainy moss forests at high altitude with pits, vines and snags of every sort...and yet they are quickly satisfied with a bit of flattery, and good spirited warmth, food and gratitude! Amazing race with amazing realistic and rationalistic empiricist attitudes, with deep social conscience, fine personal pride, but without overbearing demands of an individualistic personality cult and without long-held greivances which cannot be easily be adjusted. The ability of these New Guineans to place to a cost-value on almost any redress of greivances, provides for a remarkably pleasant and easy-to-work-with personality structure in these people. I have greatly oversimplified them, but in general, what I have said appears true.

Dick has found the day as distressingly fatiguing and anxious as I have, and in mid-afternoon, stating that he wondered whether he was accomplishing much of value on the patrol, he apologetically reflected that he might not have been assisting as much as he might. This is hardly the case, but it is interesting that when we have finally had tense and difficult situations to meet he has suddenly realized the magnitude of the problems which such a New Guinea patrolling can entail. Actually, we both failed to attend adequately to the trail cutters in our rushing ahead today and as a result a half dozen of the boys who should have been trail cutting to improve the hopeless rain forest track were doing little or nothing but rushing on themselves, to leave a yet more difficult track for the carriers of heavy cargo loads to negotiate. At supper this evening, as I remarked that the carriers and boys were in astonishingly good spirits for a day such as this, Dick knowingly remarked that it helped greatly when we too were in good spirits.

We crossed the Pio on the firm but narrow and precarious bridge over the remarkable gorge and climbed some 1000 feet to the Kai'i'rai hamlet of Faya. Tultul Kiorumu lives here. Kai'i'rai hamlet of Faya was, however, boarded up

and deserted when we arrived. The Lufa kiap (Gimi and Lobogai say Lufa as Uvai...it is really "Uva'-i"...and I forgot this until I suddenly rediscovered it today, hearing the people refer to the kiap from Uvai, and at first I did not grasp what they meant) has urged the people to move up northward to cut by two hours his trip south when he comes here. The haus kiap is thus a good 1½ hour walk up northward and a few hundred feet higher than the Kai'i'rai hamlet. Gigisiga'avipi hamlet of luluai Guge, Nao'ortisai of tultul Nei'ira, Kavarega-Haitai of tultul Seidda'ovaba and tultul Fui'to'ai are the three hamlets near the haus kiap or north of Kui'i'rai. Hero line itself is at Kavarega-Haitai while the Faya (some say Faga, others Haya) line is at Gigisiga'avipi and the Mane line is at Nao'orisai.

I learn this evening that a man with leprosy from Iare has arrived here and is staying this night at one of the villages...we shall see him tomorrow. The carriers have heard, however, not that Iare has moved toward Karamui and abandoned its old site, but that Iare has had much sickness and death and that that have been burying many of their members...and this has made the carriers frightened of the trip south!

Wanevi, Anua, Masasa, and Yameibi stayed behind with the last cargo carriers, kept up their spirits when they were ready to "ditch" the cargo and flee back to Somai and Pai'iti and finally, when they were too exhausted to go on, the boys have taken the carrier loads and rushed on very effectively. Thus, they have amply proved today my repeated tale to Dick that they are particularly indispensable in tight situations and emergencies! They have behaved wonderfully today! Wanevi took the two-man salt bag load (about 50 pounds) and carried it all the way himself! Masasa, Anua, and Yameibi have all been carrying heavy cargo boxes much of the day!

Dick and I have had a huge pot of soup made of local kaukau, pitpit, kumu, beans, and onions to which I added a package of dehydrated tomato-vegetable soup. We had three huge plates of this thick soup each! We have probably had a dozen cups of drink each this evening...I am on my eighth cup of tea! Salt went in teaspoonful batches into our soup. I had a cup of Milo for breakfast and nothing else.

We have still a batch of kaukau left for morning distribution. However, we shall need further food already tomorrow evening and this cannot go on indefinitely here with only small supplies of additional food available.

The boy of about 10 years who has become my turnim tok here is named Kalerimimo. He is a bright, adaptable boy who speaks good Pidgin and translates well and even with some declamatory skill, very important here. I have noticed that the Gimi-Lobogai language is so filled with glottal stops that it is particularly difficult to follow an English or Fore conversation against it as background noise. In fact, Pidgin and English or Fore conversations easily followed against a fairly continuous Fore and Pidgin background noise, cannot be heard or followed at all against usually glottal-stop-filled Gimi. I would be interested in a quantitative test of this. Dick and I shall try to tape some Gimi conversations tomorrow. In spite of close Somai affiliations, very few of the Heros, and only very few Manes from here have ever been to Somai...the Faya group is the one with the closest ties. The language here differs from the Yani River Gimi, where they say isapa for kaukau, as the Fore do while here they say mihi.

The cargo boys are singing tonight; the local Mengino No.1 Faith Missionary is seated in our house conversation with Yameibi--the last of the line in today!--and the boys are helping me drink up a second kettle of tea. We may have to abandon again the trip south to the Yar-Pawaians...but I have now established the Gimi-Heroana crossing as a rather traditional trip.

The remarkable occurrence of place names throughout large regions of New Guinea, crossing major linguistic boundaries, is, as I have been noting since 1957, a matter for a full dissertation. Thus, Mane is again here--and the Mani or Oriei is a recurrence of the same. Uvai in the Lufa (Yagaria) is Uvai of the Gimi. Ketabi ("clan") occurs throughout South Fore and into Awa and Gimi (Etave), and Wanitabi into Awa (Mobutasa) as well as South Fore. Moke is widespread in the Eastern Highlands (Ibusa-Moke, Moke, Taramo-Moke, and many others!). Agibu (A'ibu), Raro, Yumi are in the Gimi and the Aurulai areas, Hogeteru (Keiagana Lobogai). Yagusa (Yagaria, Keiagana, and Fore) and also Yagasa (Gimi), Haga (Keiagana) and Aga (Fore, Gimi); Tunuku (Fore and Gimi). Inibi is the river of the Lobogai valley and Inavi is the Keiagana census unit.

January 16, 1964...

The kiap, Dick, and I had a late breakfast (7:00 a.m.) together and then, while the kiap held a "political education" session at the haus kiap grounds for about 100 assembled natives, I set off for the hamlets with a group of Heroana boys, leaving all our carriers and boys behind. We visited each of the nearly-deserted hamlets of Heroana and finally, at which was a newly built hamlet when I was here last in 1962, I found the old leper, Tearo, from Lolo, and his family resting out of doors in front of a house. The old leper had his bandaged toes stuck into a pit with fern leaves covering them (flies were swarming about his feet) but whether this was just a gesture to comfort, some form of "native medicine", or simply a "fly-cover" I could not determine. Noro, or Noroaba, as the Heroana call his son of about 13 years, speaks good Lobogai-Gimi and translates for us through my Gimi translator, Karedimimo, a Gono schoolboy of 11 or 12. I took another set of photographs of the old Tearo, his Kuwasa (Lobogai) wife and his Iare wife, and of Noro himself, showing his nose piece and the strange method of removing it through a nostril. I shot a number of views of the surrounding mountains, gardens, and the houses in the hamlets, beside many of the children, and at the village of I examined 15 children for spleens: of seven boys about 6-10 years of age, three had spleens easily palpable when recumbant, but none over two finger widths below the LCM. Of these seven boys, however, two had large, firm, smooth livers with particular enlargement of the left lobe, in the mid-epigastrium. Of eight boys from 1½ through 5 years, another three had palpable spleens up to two finger widths below the LCM.

A nursing baby had died here at Heroana the day before our arrival and the Faith Mission missionary, a Mengino No. 1 man trained at Gono, had buried the infant just before our arrival. He tells me the child suddenly died after less than a day of high fever!

We have not had much of significance brought to us medically while here. The old man from Lolo with leprosy is too old to evacuate, and is not interested

in leaving. His two younger sons and two wives may be in danger but the community of Lolo is little more than this family--probably ONLY this family--and they are not anxious to see the world beyond Heroana.

Dick awoke during the night with malaise, nausea, vomiting, and mild diarrhea and today he had mild fever, slight chills, continuing diarrhea and nausea with some anorexia. I do not know what he has had, but he has been too ill to do much today, and my decision reached independently of his illness, to abandon the trip south on which I was poised--south to Haupi village of the Weme of the Yar-Pawaian language group--was made because it is fairly clear that the Iare people have moved west toward Karamui, and that the old village has been left abandoned, and thus Haupi, at about the junction of the Soma and the Pio village of Yar-Pawainans (Tedawe) we know of south of here, and the only one our limited patrolling facilities and food supply would permit us to attain! Thus, I had rather make the trip with a good carrier line and better organization such as that a full "loop" were possible: Kasarai to Weme to Haupi and up here to Hero...or from Haupi to the Purari and to Purari groups and back to Karamui or something of the sort! Iare have moved to join a group called Naua (Nawa) closer to Karamui by two days. Lolo is two days westward from here and it is one further day from Naua, old Tearo tells me today.

The route here to Haupi can be made in two days, with one bush camp, and with carriers, better in three days with two bush camps: first day at a site called Sia beside the Hio river, second day at Yabagi, or the Iare village site now abandoned, and arriving the third day at Haupi!

I would like to make the Haupi trip, but am worried about abandoning our ailing, frightened and unwilling Paiti and Somai carrier line here--along with apprehensive boys--and also about the unenthusiastic group I should have going south with me! Dick's ailment clinches the matter, for it would be several days before I should be adequately sure of his condition to risk a week of bush work down south with him...and thus once again I leave Heroana by the route north, failing to get to Iare or beyond! Our kiap is, however, enthusiastic about the idea of going down there with me in early April, and if I am back I shall try it.

January 18, 1964....Uwagubi, Lobogai Census Division

Dick was feeling his way up the trail this morning, weak and jittery, and walked slowly behind. By 6:15 I had our cargo on the trail, and the kiap's followed immediately. I walked with him, talking the whole time, and for six solid hours I talked, he listened, and I talked and talked, and talked. Finally I had talked my way uninterreptedly to the range summit and down to Uwagubi--six solid hours! The kiap did not seem exhausted from the listening or the trail, but when he sent his cargo line off the side trail a further hour or so to Maiva, he sat down on the trail junction to rest a bit...I talked some more! And thus in the amazingly relaxing, automatic and effortless process of holding forth, I crossed the 7-8 hour track from Heroana to Uwagubi, and made it this time in under the "normal carrier and walking time". Dick followed not far behind, looking a bit exhausted, pale, and wan and somewhat skeletonoid, and at the haus kiap of Uwagubi, immediately collapsed into a chair to rest and recover. He had made it after eating very little in the past 24 hours, after vomiting and losing in diarrhea much of what he had eaten; his illness is an acute mildly febrile gastroenteritis with nausea, emesis, mild diarrhea and

anorrhexia and generalized fatigability and mailaise. He has certainly lost further weight in it. It was fortunate we were at Heroana resting for the worst part of it and not out in the bush. The decision to postpone the trip to Haupi is certainly well taken, for now when I get there I shall get to Weme again, and probably succeed in visiting other Yar-Pawaian settlements. I would particularly like to cross from the Pio to the Purari if we could locate Purari villages upstream from the Subu junction in the trip.

The trip here, climbing the range for a large part along the stream bed, knee deep in cool rushing water, was a fine trip, but an hour after arrival I realize just how much energy I had put into it. We used a group of Uwagubi visitors and several Heroana men and boys carrying with our line, and thus our own carriers carried very little and most had help along the trail. I have paid the Lobogai carriers and told our line that the vacation is up, and from tomorrow they carry again or I dismiss them and give others their pay. They seem in good spirits since the one, exhausting, killing day--that of our arrival at Heroana. We have again seen the Lufa "Gimi" and again missed "Iare", but the trip has been an interesting and profitable one, although many days were of little accomplishment.

I am now very anxious what awaits me in mail at Okapa, but fearful that it will mean a full week or more of paper work.

We have had ample food brought, but soap has been the trade item in demand, for we used it to great success in Heroana, but here we have not used soap in spite of pleas for it, for I have little left!

No severe illness is reported here at Uwagubi and we saw none at Heroana, and both groups appear to be outside of kuru danger for the time being. I have been expecting kuru in one of the Agotu (Aurulai) mission groups, but the kiap knows of none; we shall see tomorrow.

Our early departure and uninterrupted progress without rain has brought us here in good time and good spirits, and thus we are fairly well off this evening, and have eaten enough to be well fed already. Some of the pig the kiap purchased for 2/10/00 from the Heroana people yesterday evening and gave to my line as well as his, is still in our haus kuk and we have had it fried this evening. Tomatoes, pitpit, kumu, onions and other vegetables are coming in and we can make local garden soups again. We have been out on patrol for over two weeks without mail or "contract" from Okapa, and it is a good feeling. I am now getting very worried and curious about Mother and Mbagintao, about the outcome of Mbagintao's immigration office hearings, and worried lest Marion has had to pinch hit for Joe without understanding that under no circumstances will I let him get back to New Guinea if he does not want to return, whether it means bringing him to Europe or Africa or even more drastic or costly moves. I would be prepared to even try the other side of the Iron Curtain. I have misgivings that Mother and Marion may not take me seriously on this matter and botch things up, making it finally far more costly and difficult for us both. I hope these are not valid misgivings but nonetheless I have them. Joe, I think, knows the situation and will not make any concessions to bureaucracy no matter how "necessary" they may seem.



I am anxious to get to intensive village work again at Agakamatasa, Awarosa, and Moraei...then in Simbari and Munii! This is the most pressing matter of my return, and I am still far from it!

The Aziana group which Jeff Booth has convinced me should be called Genatei, is obviously one of the more interesting in the territory and I do not intend to return before studying it a bit. The Chimbu murders at Obura have been the occasion of opening a new Patrol Post at Obura and Wonenara is apt to be made a sub-district. This is perhaps fatal to Wonenara progress, and the budget money has already gone into Obura that might have gone into the ill-chosen Wonenara Patrol Post site.

The kiap--whose name I did not catch and did not recall--knew me from my visit to Kandrian and my conversations with him there. We have had a fine soujourn with him at Heroana and I have held a soliloquy for him for six hours along the trail today. We get along well together and he wants to make the patrol to Weme, Haupi, and the Puarari with me together in April. However, in spite of these three days of living together I do not yet recall his name. He has been at Wonenara covering the post during Jeff Booth's absence on leave, and Jeff has just now returned, probably to Wonenara. Bill Seale has just retired from the service and thus I do not now have as good contacts in the district commissioners office at Goroka as I did. With Mattheisen there I hope it will be possible to work out papers for Mbagintao's extended absence as easily as it would have been with Bill Seale's help!

Last night the kiap showed a film strip at Heroana of balloting procedures--a film strip prepared at Melbourne University. He then showed the Kodachrome slides he took at the Christmas Singsing at Wonenara. It was good to see a set of photographs of the North Lamari Tairoras, the Genateis and Kuks again. It is the region I like most in the eastern Highlands.

Geographic names of the Heroana region: The Hio (Pio: as the Fore call it) River is joined by the Dagu River, flowing in from the east, some what upstream from Heroana. To the northwest of Heroana and on the slopes of which gardens have been planted, are limestone-cliffs containing hills called Lukuwahi and Fulaka. The gardens on one section of hillside are filled with white outcroppings of limestone, and this gives them a very strange appearance, unusual here in the eastern Highlands. Kabuso is the mountain to the east which we crossed from the Somai valley. Further north and east are the following peaks: Pakaviat, Olerimet, Kulageta, Kokepi, and Feveta.

January 19, 1964....'Aurulai ('Agotu), Lobogai-Gimi

We arrived here at the haus kiap at only 5,300 feet elevation (i.e. at the airstrip!) after a long trip from Uwagubi which was interesting all along the way. It was punctuated with interesting stops and events and by the time we reached Aurulai (some of the Gimi down the valley call it Karulai, and we have noticed irregularity in using the glottal stops of Gimi here, or replacing them with "k's"). I have even heard Kagotu and Kaguane!

The first phase of the trip was the steep descent from the Uwagubi haus kiap to the streams which separate Uwagubi from Agibu. There are three of them with small ridges between. After the last such stream, the ascent is steep and long, exhaustingly and discouragingly continuous, and the final arrival at Agibu's

first hamlet had brought us to an altitude far higher than Uwagubi. Here the people swarmed to the trail to greet us and bestowed gifts of sugar cane upon our party. I paid for it with threepences. Beyond, we skirted the rain forests and cliffs overlooking the stream which forms the main drainage of the entire Lobogai Census Division and flows into the Waghi and becomes the Tua. Len Glick calls it the Ramu, and the people here call it the Inibi. The smaller stream north of the haus kiap which flows into the Inibi is called locally A'ibu (Agibu). The rest of the day we proceeded upstream some thousands of feet above the Inibi, along the high trail that passes through the Agibu and Mane groups. On approaching the Agibu haus kiap, where I spent a day 1½ years ago with an entourage of jubilant and screaming children clinging to my hands, many recalling that they had drawn pictures for me on my last visit--we turned off on the trail to Mane, just before arriving at the Agibu rest house. A long crossing of the ridges brought us finally to the first set of Mane hamlets where we had another effusive welcome and were soon presented with five children with large ulcers, three of which were very suspiciously like yaws! We dressed these, but the dokta bois (Masasa and Yamebi) were not anxious to pause in our trip to give medical treatment, and let the cargo pass on without taking out the Primus burner, the syringes, or the penicillin. Thus, we had to persuade the people and children to follow us to Aurulai for the further treatment they needed. We started down from the ridge hamlets of Mane after having paused for a quarter-hour at the Mane haus kiap, and the people on the way begged me to treat them down at the stream below us, and not much later in Aurulai, from where they would have a long walk of well over an hour back home! I tried to do this, but I did not catch up with the cargo containing the medications for parenteral use in time. We went on to climb steeply to the second Mane ridge-site where a mumu made in large four feet high and over one foot in diameter wooden "drums" (which the Fore call magura) was in progress. We were invited to stay and share it and some of our line has done so. Dick and I took cinema records of this fashion of making a mumu in wooden cylinders into which food is piled with hot rocks, and the water is then poured in before the stack is capped with sod and dirt. Hot rocks are interlayered with kumu and other vegetables and not placed exclusively in the bottom.

Here I was appalled to see the mothers and five small children with ulcers (three with presumptive yaws) still with us, and obviously bound for a rainy afternoon in Aurulai and a night-time return--probably in the rain. Thus, I angrily insisted that the dokta bois rush ahead and stop our cargo carriers carrying the boxes with the penicillin and with the syringes, and give the injections here. This they did and a group of boys and Masasa and I remained behind to share the mumu, treat the children, and finally follow our line about an hour late into Aurulai. Here we found a great many very extensively decorated natives. In the nearby hamlet of I'a'ammaberai of Agotu a singsing had been in progress all day and the men and boys with wonderful head-dresses were filling the haus kiap grounds. We had no difficulty in securing ample food for our line and even brought almost enough for a second day. The carriers were undecided as to whether they wanted to rest here a further day, but they have finally now decided to do so. I am glad, for I need a day to catch up on records and writing and thinking, and would like to see more of the Agotu region.

Dick made the trip right behind the cargo but arrived exhausted, and I only noticed today how really ill he had been. He has certainly lost some 10-15 pounds in the past few days, and he looks gaunt and wan and it is surprising

that he has managed to keep along--actually keeping up an excellent pace, ever since Heroana. It would have been foolish to try to sit long in food-short Heroana, but now we are at Mission site--the Schulz's have invited us for supper--and we have ample food for our group here and good accommodations. Dick has really been remarkable to have kept up so well without complaint when obviously so ill. He has been on Terramycin therapy, 2.0 gm. the first day and 1.0 gm. daily since then, which should be ample for a febrile gastroenteritis, which is what he has. I have worried lest he have infectious hepatitis, but it is now late in his course and there is nothing to suggest hepatitis.

The Agotu Gimi-Lobogai are friendly, and colorful, and interesting, and although they have at first demanded exorbitant prices for food, we have settled for usual prices in salt, matches, tobacco, and money for usual items of food. Pandanus nuts (garoka), sweet bananas, good corn, onions, tomatoes, and beans have all come in. The natives wanted to sell us a sig pig--lame after a fall--which is a small pig hardly weighing 15 pounds. They asked 2 pounds, quickly settled for one, but would not drop to 10 or 15 shillings, the highest price the carriers and boys wanted me to offer for this small thin piglet. Pig prices are much higher here than in the Fore, where 1-2 pounds will buy a big pig. The kiap paid 2/10/00 for the very large pig at Heroana, and it was probably worth more-- perhaps even 5 pounds!--by native standards. For the kiap they give it away cheap!

Here at Agotu Mission the Schulz's tell me that the new Lufa kiap, my fried whose name I have forgotten and was too embarrassed to ask him for, is Collin Campbell.

January 20, 1964....'Aurulai (Agotu), Gimi-Lobogai

Again a "day of rest"--after a Saturday and Sunday of strenuous trekking. Dick appears better, is off drugs and seems well, but has just noticed his emaciation and thinness in the mirror at the missionary's home and has been a bit shocked by it! We have spent a very profitable day in getting to know the people here better, and also a day of considerable medical activity. The Mane and Agotu people have come to us with a dozen tropical ulcers, other large infected sores, and several cases of fever, gastroenteritis, and one acute, severe laceration over the right eye in a small girl of about five years of age. We have thus been giving injections and cleaning and dressing wounds, sores and ulcers much of the day, and wondering why the local Aid Post has not been used. It is, in all probability, a complex mixture of matters and events. The Mane and other more distant lines, although "neighbors" are traditional enemies, and with murders here as recent as the past two years and less, it is not surprising that they are not too willing to come to enemy country for medical aid. At Mane the people begged us to ask Lufa for an Aid Post of their own--they obviously do not often go to 'Aurulai! Then, when I was last here there was the problem of the Chimbu dokta boi desperately trying to get away from this valley where he feared sorcery and where the people no longer trusted him. His successor is a neat, clean, well-spoken type of dokta boi, of whom I know nothing other than what is revealed in a brief conversation. He has perhaps had good training and is capable, but for some reason he has certainly not flushed out the sick from the close-by hamlets, not treated the children urgently demanding therapy! I would like to talk to the dokta boi to learn what the trouble is. The abandoned old Aid Post has not yet been fully replaced, and the dokta boi is thus without his wards or dispensary and may be reluctant to "get started" pending the completion of his new Aid Post by the locals. All this is conjecture.

The Schulzes are the same family which was just moving in when I arrived here last time. Their sick native Finschhafen missionary who was "holding the fort" while Mr. Alfred Schulz was off on patrol and was desperately ill with some pyrexia and abdominal disease I could not diagnose, has recovered completely and is resident in a nearby hamlet. The missionary himself, Mr. Schulz, whose guest I was just before setting off for Karamui, is now here with his wife and two daughters and one son (6, 4, and 2 years old, respectively), and the family has offered us immense hospitality, insisting that we eat all meals with them and that we sleep in their guest room. We have eaten every meal with them--having a mid-day meal for the first time in days--but have slept here in our haus kiap, not to "desert" the boys.

Today, early in the morning, a large group of wonderfully dressed and decorated Gimi came down from the hamlet of Vavemotai of Mane-Lalo to visit the hamlet of 'I'a'am'abera (Ki'agam'abera) just above our house kiap but also belonging to Mane, a line called Inibisuana. (The large river of this valley here is called Inibi, and small tributary just north of our haus kiap is called A'ibu or Agibu). This was the third day of all-day singsing at the 'I'a'am'abera hamlet. Yesterdays guests were from Anei'a'a'vo'tai of Mane; the previous day the guests were the A'o'tuwana (people of A'otu or Agotu). The purpose of this singsing was for the initiation of seven boys of "I'a'am'abera hamlet. The initiation was started some 3-5 days ago (I get different stories) and the missionary did not know anything about it and had obviously been given evasive answers when he asked about it, for he told us right here on the haus kiap grounds surrounded by singsing guests yesterday and again today that he did not know what it was all about. It was not long before the people told us the details of the current affair, and when we visited I'a'am'abera hamlet later in the morning in the midst of an enthusiastic singsing, the seven novitiates were seated in a line in full ceremonial initiation regalia observing the singsing but not taking any active part in it. Dick took much cinema and some synchronous sound cinema of it all, and then, while all was in progress and the local people were filling two huge wooden mumu cylinders with food and hot stones, a heavy downpour started and everyone rushed for the huge, long men's house beside which all the festivities were held. The grounds were filled with women and uninitiated children, as well as men, but only the men and initiated youths flooded into the house. There was a long stampede for the one, small entrance, through which one has to almost crawl. I came in and wandered to the depths of the house where I was soon seated on the floor--covered with sugar cane peelings--with the groups of seven initiates.

Soon the men began asking me about whether I was from America, telling me they remembered my previous visits, and some had even been carriers with us before. One was even on Jack Baker's and my 1957 Kukukuku patrol and went down to Weme and the Subu with us when we "took off" by canoe for Papua. I soon was being begged to stay and settle here in Agotu, and quickly the natives began to tell me that they liked me because I played and joked with all their children, because I took care of their children's sores and diseases, and because I came into their houses and sat among them and joked and jibed and jostled with the children. They specifically said that "masta blong mipella em in no wokim olosem", in a mildly chiding manner. However, all this flattering compliment must be taken with a grain of suspicion and mistrust, for there is certainly complex prestige at stake for every hamlet in this matter of securing a resident or prolonged visiting European--and with it comes much material gain as well! Soon the men were taking from a smokey shelf of flutes about our heads, above

the house fires, a stack of bamboo flutes and playing began. Dick came in and was soon recording the playing on the Nagra. We learned that the various songs or "styles" of flute playing were named after various birds, and different "styles" or "songs" were played with different flutes. In all, they listed four flute music "songs" named for birds.

January 21, 1964....Mane-Gimi Linguistic Group

Last night, after 11 p.m., after Dick and I had returned to our camp from the Schulz's where we had showered, washed, and eaten luxuriously, we found our cargo boys sleeping in two of the cargo boy houses, but in the third they were singing a Kukukuku singsing with our four Moraeis leading and several Fores from Miarasa and Agakamatasa assisting. Paku and Koiye who had been watching our house, had curled up and fallen asleep in my bed. I went to visit the Kukukuku singsing and slowly it came to a close. Wanevi kept talking with me until after midnight and with our long conversation, I slowly learned many a new interesting fact--if these be facts. There was a murder of a Takai-Purosa man who had two Fore wives from Mugaiauti and Takai, his murderers being Ketabi-Purosa and Takai-Purosa men. This occurred just before 1957. The two wives were "captured" and taken back to the Fore from the Ainese settlement north of Weme where they lived. One of the women is living at Pusarasa near Okapa station (name: Dote, wife of Ao ) while the other has just recently died of kuru at Takai-Purosa (name: Tovina (Obeina) wife of Akewari).

The Asakina, who were all killed by a raid of Mugaiauti and other Purosa people just before administration started in the region, are often talked about. They are said to have lived between the current southern Fore boundary and the Yar-Pawaians, south of Kasarai and Urai. I got this story last year. However, now Wanevi tells me that some who fled made it to the Goroka region and that now, Fore youths working in Goroka have found men and boys who know they are descendants of the Fore Asakina, however, they now speak the Goroka language and are rather sophisticated. Thus, Wanevi tells me that he has heard that Asakina have really been located by South Fore workers in the Goroka region. This is extremely important, and I fear that it may be complex legend and mixed-up-memory resulting from my last year's inquiries as to whether any Asakina fled and if so where did they go?

Yesterday Dick and I managed to do considerable photography and tape recording in the hamlet of 'Ia'am'aberai where the singsing was held to introduce the newly initiated seven youths to men's house was the occasion for taking down the flutes, and the flutes were given different bird names corresponding to the bird-song-name used for the music played on them. There were only a few willing to play the flutes and who knew how to play them well. These few played in pairs. We listened to two different flute songs then Dick started to record the third on the Nagra, and we managed to record three completely and the fourth partially before the tape supply gave out. The people then told me that there were no others, but I overheard enough Gimi already to understand the side remarks informing me of two others, also bird-cry-flute-songs named after the birds, while others shouted to the informants not to tell me and say there were no more. One man, not part of the performance at all and who had not even assisted, asked from the foot of the long men's house what we would pay for the songs we had recorded, after Dick played them back for the players. I retorted sharply that we had not yet figured out what we would charge them for the recording! This silenced the

sharp dealer, but quietly I turned to the performers--all recordings had been made by one pair or players, all "songs" being duets, for two flutes. The playing is done standing, players facing each other, and their faces are held close to each other and flutes almost touching. They answer back and forth in all versions we heard.

When the visitors from                      were first arriving yesterday they formed a dramatic and colorful and musical pageant coming down the slopes opposite the haus kiap grounds and later paraded about our grounds in an exuberant singsing. Dick quickly got ready to do synchrosound cinema of the players, taking Koiye from a hunt for medical supplies and an organization of our medical materials which I had him working on. We were besieged with patients with tropical ulcers, a few sores which looked like yaws and other ailments. Koiye had not attended to the trade supplies, my papers and personal supplies, or the special medical supplies I have asked him to care for largely because Dick has monopolized him for work on the Nagra tape recorder and cinema. Koiye profits from this and enjoys it, but since he is the lad I have chosen for my personal affairs on the patrol all this year, I have acutely resented Dick's finding all of the 40 boys on our patrol, just Koiya for his own work. Those who have been working with him such as Paku and Koka (Agusi) I have left to him, and many of the others I would have no cause for complaint or jealousy. However, by usurping Koiya's attention he takes the lad I have most relied upon and worked most diligently to train. I find myself annoyed and jealous, but usually quiet, and I have been embarrassed about demanding that Koiya be left to those tasks I assign to him. As a result, I have no one for the one camera I want on the trail, I have not Koiya's help on the trail, and in the house and in our work he is distracted and inefficient and often useless. Thus, with accumulated resentment, I quickly asked Dick to get some other boy to help with the tape recorder and cinema and Dick retorted that he had no time and had only trained Koiye to do it. I was all the more annoyed to have him thus exclusively usurped, and preemptorily demanded that he first finish the search for medical supplies in our cargo which we were in need of in treating the morning patients. Dick was furious, quickly shut the Nagra and abdicated from any attempt at recording or cinema. I myself did not blame his anger at my arbitrariness or jealousy or my unreasonable paternalism, but I did feel acutely angry at missing the dramatic singsing performance at the height of its enthusiasm, a performance in dance and song hard to find again. Thus, I was tempted to rush in and use the cinema myself, but withheld myself from such action and let Dick sulk in fury for an hour or so while we attended to the sick. Later I asked Koiye and other boys to go in and ask Dick to go up with them to the village of 'I'a'am'aberai where the singsing was in progress, to see it. They were pestering me to go, and without one of us, would not themselves have visited. They succeeded in getting him over his resentful pouting, and I disappeared into our temporary aid post (an old church) to finish the injections and dressings with the two dokta bois. Later I myself went up to the singsing ground beside the long men's house of 'I'a'am'aberai (a Mane village), to take still pictures and watch the performance.

Dick has gradually got over his kros, but on the trail today, Koiye asks me why Dick was cross. He was moping and apparently disgruntled again today, and after Koiya and Yoyo'e hung close to me on the trail, Dick appeared even further out of sorts. I thus said nothing as Koiye elected to stay behind with Dick, losing my camera and his assistance along the trail. The only really acutely disturbing matter about our differences, is the slow disenchantment which it all

brings in my relationship with Koiye, and there is no doubt that I had planned and worked long to have him this year on the coast with me, perhaps to New Britain, and to favor him as I previously did Mbagintao. It is difficult to lose contact with him and still preserve my plans, and I already find myself considering others, planning to take others, and disturbed at the unfortunate outcome for Koiye of our unhappy triangle.

It is too late to develop Paku, Koka (Agusi), Obariso, or Waiso or other youngsters for Dick's technical needs in caring for tape recording and cinema and camera carriers, although Dick has used them all. None of them have the constancy or dependability of Koiye, and thus Dick has slowly abandoned them in favor of my "house boy". An amusing, not infrequent situation of petty possessiveness and jealousy here in New Guinea which I have to keep in proper perspective and not let influence to greatly my long-term relationship with the various boys.

We packed cargo and had it off by 6:30 a.m. although we did not get up until 6:00 a.m.. As the cargo carriers departed, Dick and I climbed to the Schulz's house to have an elaborate breakfast with them which we made brief. Starting with a few of the boys about three-quarters of an hour after our cargo had left, we managed to overtake it in the rain forest above the last Lufa-side hamlet. Along the trail the luluai from of Agotu and several of his line joined us, making themselves self-invited members of our patrol on our trip to Uvai. Whether we are rendering them only prestige or safe-conduct or some other service I do not quite know.

We climbed the divide, the southern extension of the Mt. Michael Massif, with the 12,500 foot summit rocks of Mt. Michael visible along the way in the early morning to later become cloud engulfed. We made the final pass which is, I believe, over 9000 feet high, by about 9:00 a.m., rested there a bit, and then started our descent. Dick and I remained behind the cargo line, having to loiter dreadfully and send on many of our boys who prefer to occupy this rear-guard position. Dick insisted on keeping it even from me, and I gave up, settling for a small penultimate detachment of Nagai, Yoyo'e, and myself and intermittantly, Andembitsuo. I find the Kuks as loyal and dependable as anyone, and look forward to being among them again.

As we reached the final pass, we were still enjoying fine weather, and the climb had not exhausted anyone in our line. However, shortly after we began our descent, clouds engulfed us completely, and soon rain which increased in severity to a real downpour. From then on our muddy track became a mire, often very deep, with our high shoes sinking far below the mud. The descent is far longer than the ascent, and it was after six hours of carrier time that we came into the upper hamlet of A'omane between Amanetu-Taro and Ororatu-Taro (Raro or Lalo) which are the further northernmost slopes dropping from the Mt. Michael Massif, and Utunumane, on a third narrow ridge, further southward. We still had another two hours to descend to the River, cross it, and climb to the Mane haus kiap, and the final cargo came in after nine hours of trail at 3:30 p.m..

The Mane haus kiap must be over 7000 feet high, and it is on an exposed, windy, and cold summit, rather remote from all the Mane census units hamlets, and thus a difficult place to purchase food, except from the one village of Mane proper, nearby. We have enough food for a very small skeil (skeil=share) for

each of our boys and carriers and in dusk are hoping that the luluai and people of the nearby village who have rushed off after our late arrival to get further kaukau, actually do return with an ample supply.

The luluais of A'omane and Amanetu-Taro and Mane have all insisted they have no kuru here, as in the past, and we have nothing to do here but pass on southward, back toward Pai'iti. We may head to Takarai from Amusa or Misapi, avoiding return to Pai'iti, sending on carriers to bring our cargo from there to Takarai to meet us. This is not yet settled. Dick is in higher spirits this evening, the boys and carriers have weathered the long crossing without accident or exhaustion--the trail, slippery, steep and often bemired though it may be, is clear and nothing like the Somai to Heroana crossing!

The local people tell me that the kiap on his election propaganda patrol is sleeping at Tunuku only some two hours from here. He is due here in two days.

The further cinema, still photographic and tape recording documentation of the regions we have visited and the first hand confirmation of the kuru situation in the critical border area has been the only real accomplishment of these two weeks of patrolling. I wonder whether it would not have been wiser to have spent them waiting out Oreke's death to obtain a liquid nitrogen frozen virus isolation and biochemical specimen and a further fixed specimen for histopathology. I needed to visit again this part of the Keiagana and Gimi-Lobogai, I regret not having extended our Yar-Pawaian contact yet, but in all, it has been a rewarding walk.

Dick remarked at the Schulz's last night, when we were seated quietly together, that patrolling together was difficult in that neither of us accomplished as much work as we each should alone. His is reiterating my repeated thesis, that field workers should not stay together, should not live together, and should not work together, but be independently our in the culture studied in separate hamlets or villages or regions. I have taken Dick on this patrol because I would find it difficult to justify it for him alone. The reevaluation of yaws (new cases in Mane on the Lufa side) and tropical ulcers (a great crop in Mane and Agotu), the discovery of the new tremor case which in the Keiagana at Henegaru, who is actually an adult Gimi man from Yumi, and the further data on kuru cases were all things I wanted and needed to do, some of which Dick could have done alone, but not all. I myself am very anxious to settle down to some quiet work in Agakamatasa, Moraei, and Simbari.

Just as I am typing with darkness engulfing us, Tosetnam returns soaked, with a soaked line of cargo boys, from a trip to the nearest villages where he has succeeded in buying a significant further supply of kaukau and sugar cane! This brings our food supply to the "just adequate" level, and we are most fortunate.

If we do cross the South Fore, checking on kuru and filming, we shall add a further accomplishment to the patrol, and with that I shall head out with Dick to get him back to NIH--already overdue. If it can be worked out well to visit the Bakers at Taipini and get some work done there, we may turn to that just before he leaves. He and Paul have done a good job here. At the moment I am most concerned by his great loss of weight on this patrol and his lingering malaise. The 6 a.m. starts, the irregular and scanty meals, and overexposure to



tea may be part of his trouble, but his infection at Hero has been the major problem. He now says he feels fine and he looks a bit better.

January 22, 1964....Amusa-Gimi Linguistic Group

We arrived here in drizzling rain after about 6-7 hours of trail from Mane through Uvai. The trail between Mane and Uvai is very, very greatly improved since my early trek on it, but toward Uvai it finally descends to the stream bed and follows the stream, largely down its center, for a long distance--probably for several miles! Dick, following later in the line, followed the new Gimi road under construction instead, until construction stopped, passed through a Fusa hamlet, and then descended to Uvai on a slightly longer and rougher track. We waited at Uvai for him and the carrier line, and within an hour everyone had arrived. The Uvai people were busy at work on their haus kiap with the kiap's visit only a few days off, and they had almost completed a new rest house floor. It is interesting to see all this activity only just two days before his arrival, for they are certainly not too ready to get to this sort of work on only "threatened" visits or long before scheduled visits. Here at Amusa the same thing was in progress...a new floor on the new haus kiap adjacent to that which we are occupying had been made only this morning, and since our visit here just a bit over a week ago, the roof has been finished.

With our arrival, our circuit is about complete, for we shall now move on to Fore Takarai. The Pai'iti and Somai and Kasarai carriers, and the one from Heroana and the three from Aguane have all decided to leave us now, and thus I paid everyone off, exhausting our cash funds in the process. Yameibi, the Pai'iti dokta boi, went on to Pai'iti in rain at 3:30 p.m. with some 20 of our line, and we do not envy them the further four hard hours of walk before them. I have distributed tobacco, paper for smoking, and ample food to the boys and few remaining carriers and a tin of meat for each four of them, and everyone is comfortable and resting in spite of the miserable, chilly, and rainy afternoon.

I have been very contemplative all along the track, and again managed to stay clear of the line from Uvai to Amusa and to enjoy the drizzle, the flooded, rushing Yani, and the beautiful Yani valley alone, without chatter and without interruptions. Dick thought I must be ill when he found me seated across the second Yani bridge from the trail, under a huge tree which completely shielded me from the rain until it ceased, and was convinced thereof when I wanted to stay behind and go on after our line by myself, as I have done. I have arrived an hour or more after the others in camp, having had a chance to think over my laboratory work and publication plans and the whole course of our research work more seriously than has been possible for months.

No kuru in Mane, and they say none here at Amusa other than the two women we have seen. We are not tracking it down diligently just now, but will start in Takarai, if all goes well. There may be a problem getting carriers to replace those who have now left us. Yameibi will send on all the boys' supplies and our supplies left at his Aid Post with local carriers the day after tomorrow, directly to Umasa, where we shall travel from Takarai, missing Oriei and Kasarai.

Mani was a Japanese fairyland this morning and I shot almost a roll of 36 exposure still films all at f 4.0 and f 5.8 and speeds of 1/30th to 1/60th second of the cloud-covered ridges and ranges, with protruding silhouetted outlines of the peaks, hills, and crests and their lace-work of trees on the nearer ones. We left before the clouds had cleared and soon descended right into clouds which were filling the valley below our high perch.

Coffee is planted everywhere throughout the Yani valley and seems to be the major commercial effort both in Lufa and Okapa regions. Thus far, the market has been good and many natives are making 5 to 10 on their coffee. If this keeps up, it will be good...but many government people seem to be skeptical of the world coffee. Anua tells me the diriman (agricultural officer) offers only 1/10 for a bag of native coffee. Bunting Company from Kainantu now comes in and collects it, paying up to 5/00 to 7/00 per bag. Some Purosa valley men have made over 20/00 on coffee this year. I will need some 50/00 at Purosa to pay off our unpaid Mugaiauti and Purosa carriers, those staying with us yet from Kamira and Keefu, and then all our boys. Thus, on reaching Purosa I shall have to get word into Okapa quickly, if I do not get a messenger off before we get there.

We have seen no snakes on the trails, but at Misapi before we started across to Heroana, the boys found a snake over a meter long, on the roof of the smol haus (Pidgin euphemism for toilet). This they captured and with whoops and shouts tossed it alive by the tail about the haus kiap grounds. About an hour later a Misapi Gimi arrived with a huge, thick snake about two meters long and three cm. in diameter in a tin can. The snake was vicious, and bit his hand, drawing a good deal of blood as he reached in to remove it. Thereafter, he tossed it about, let it crawl about the grounds, pulling it back quickly by the tail whenever it threatened to get away. Boys crowded about with glee and fear, shouting loudly each time the snake struck at his captor.

The chill and drizzle and cold wind has penetrated our buildings and made everyone cold and forced us to huddle about fires much of the afternoon. Amusa people were about and friendly, in spite of the drizzle, until midnight, but then deserted us completely, and our small remaining line, Dick and I have been unusually quiet and uninterrupted all late afternoon and evening. We have eaten more than we usually do, and as a result of conversation and eating, I am with a mild headache and an uncomfortable "stuffed" feeling. The Kerema Papuan missionary who conducts a medical Aid Post here at Amusa brought us passion fruit and a pineapple today. We have not really rewarded him properly for all his friendly help and hospitality.

January 23, 1964.....Takari (Takarai) - South Fore

It is now 8:00 p.m. and pouring fiercely, but the new haus kiap at Takarai is well roofed and our carrier line and boys are well lodged. I have finished reading Albert Camus' (Penguin book) collection of short stories entitled: "Exile and the Kingdom" ("L'Exil et le royaume") in Justin O'Brien translation. The stories linger hauntingly in my memory as I walk the trails, and although several I have read previously, I enjoyed rereading them now. "The Renegade"

and "The Artist at Work" are for me, personally, the most compelling, and the latter is of all six, that which will remain with me most forcefully! It is so beautiful a dissection of the degeneration of creativity that I must keep it on hand for rereading. The books I stole from the South Pacific Commission Amenities Library for our Tongariki Expedition reading I still have with me and these used Penguins and other paperbacks I must someday replace for them. For the moment I shall leave them in my Agakamatasa-Moraei library!

I am now reading Conrad's "Lord Jim", and I find myself rereading chapters and pages time and again, only about half through the book now, but never objecting to the rereading. Conrad's style is such a lesson that I read once for his style and method of telling a story, then again for the details of the story, and then again for both...always shifting my attention back to his remarkable use of the language, his amazing method of story-telling. I cannot say that Camus, in translation, is as good--his stories hold attention for their strange and compelling content. I must return to him in French, but there I shall be too blind to style, I fear, to find any trace of Conrad's amazing abilities in him.

"These were two kinds (Seamen in an Eastern port). Some very few and seen there but seldom, led mysterious lives, had preserved an undefaced energy with the temper of buccaneers and the eyes of dreamers. They appeared to live in a crazy maze of plans and hopes, dangers, enterprises, ahead of civilization, the dark places of the sea; and their death was the only event of their fantastic existence that seemed to have a reasonable certitude of achievement. The majority were men who, like himself, thrown there by some accident, had remained as officers of country ships. They had now a horror of the home service, with its harder conditions, severer view of duty, and the hazard of stormy oceans. They were attuned to the eternal peace of eastern sky and sea. They loved short passages, good deck chairs, large native crews, and the distinction of being white. They shuddered at the thought of hard work, and led precariously easy lives, always on the verge of engagement, serving Chinamen, Arabs, half-castes--would have served the devil himself had he made it easy enough. They talked everlastingly of turns of luck: how So-and-so got charge of a boat on the coast of China--a soft thing; how this one had an easy billet in Japan somewhere, and that one was doing well in the Siamese navy; and in all they said--in their actions, in their looks, in their persons--could be detected the soft spot, the place of decay, the determination to lounge safely through existence." Joseph Conrad: "Lord Jim" Chapter 2

It has been worth rereading this twice to myself, once more to Dick and now typing it out here. There is no need to add that I know that I belong to Conrad's minority group...but the picture of seamen is so aptly transferable to all men in the South Pacific, that I find it a sobering text for repeated reflection.

Mosquitoes at perhaps over 7000 feet in wind and rain swept, very chilly, Mane on the haus kiap peak--while we huddle about fires in the cold! Mosquitoes again at over 7000 feet in the rain forests this side of the Lamari en route from Amusa. Mosquitoes again here at the haus kiap of Takarai. Am I overestimating the elevation? Is it "seasonal", or is it a constant matter? At the species?

We did not really leave Amusa until about 9:00 a.m., after arising late, at 6:30, by which time I usually have the cargo line on the trail. Not a single Amusa carrier showed up and yelling over the hillsides and across the Yani seemed to make everyone hide further, and to chase every able-bodied man into the gardens and bush. Just why we have had this--for our patrol unusual--reluctance to carry I do not know. I was none too generous with the visiting luluais yesterday, who hung about for smokes and papers and gifts having done nothing--they had not even responded to our plea for ample food. Had the Pai'iti and Somai carriers not left us and had I not issued tinned meat, the boys left with us would have been hungry! Thus, Amusa, in spite of a lot of fuss and show of "attention," has not on either of our visits turned up with willing carriers with any dispatch nor brought us ample food supply in spite of early and repeated requests. Since this has emphatically not been the case elsewhere, I am inclined to think it may not be entirely the result of our behavior with the local people. The two lads I "signed on" from Rarotu last night arrived about 7:00 a.m. instead of at sunrise as I requested them to, but they were our only Amusa volunteers. Finally, I found our boys tying up the cargo and by 8:00 they set off carrying everything themselves but one bag of rice, table and chair, and a few haus kuk pots, and the typewriter. Anua, Adjetmaga, and Masasa who were left with me, took their loads, and shamed the tultul and his wife of the hamlet into helping. Finally, left with only a 60 pound load of rice, Masasa took this off its pole and carried it himself. This sudden spontaneous decision of my line of usually "loadless" boys to carry the cargo pleased me greatly, and they did a good job. Dick and I finally caught up with them about half-way on the track from Amusa haus kiap to the Takari haus kiap, at the Amusa Gimi hamlet of Waionavi where we managed to get an additional 12 carriers to help. Thus, the boys carried only to Waionavi and thereafter carried again their usual minimal loads! We arrived here at 2:00 p.m., after some five hours of carrying. It is really a 4-5 hour trip, closer to five for heavy cargo. The crossing of the Kusuga River below Waionavi hamlet held us up a bit, for the first carrier loads crossed the flimsy suspension bridge well, breading rattan suspensions attatched to the foot walk, and finally the bridge almost collapsed under Waijeke and , but they retreated successfully. We had a full 30-45 minutes work repairing the bridge for the remainder of the line to cross.

Here the small group of forest-surrounded hamlets in this virtually kunai-free valley forms a rather isolated South Fore community living far more in the forests than most North Fores or those of Atigina, Ivaki, or Purosa. The

people are building a "modern" hamlet with round sleeping houses without fires, square cooking house, and latrines behind the sleeping houses, all in very orderly array and all immediately adjacent to the haus kiap. They credit the kiap with the idea, although Dick says that Mert disclaims any pressure for this new building style. The local people say the kiap actually staked out their new building site. There are conflicting stories throughout the South Fore, most crediting the government with pressure for their rebuilding program and "new designs", but at Okapa it is denied. Whether Mert's cadets and patrol officers are going over his head or whether his police have engineered the matter remains to be seen. Dick says the Kamiras claimed to him that police told them that unless they rebuilt well, the kiap would burn down their old villages. Whether these are but tales for devious native purposes or not I cannot tell.

January 24, 1964....Umasa haus kiap - South Fore

Last night, as the sun set behind the forested ranges of our mountain-enclosed Takari valley, and after the hard-wrung kaukau and sugar cane had been distributed to our boys, we heard shouts in Gimi language from the big ranges toward the Oriei to Umasa trail. Finally our boys made out the cries sufficiently to suspect a cargo line was approaching and shouting for assistance, and they took off up the trail. A half hour later, in darkness, some 15 Pai'iti and Somai carriers arrived with Yameibi, the Pai'iti dokta boi, carrying the cargo and boys personal gear we had left behind at his Pai'iti Aid Post before crossing the bush to Heroana. I quickly broke out rice and meat for the carriers and gave a second great pot to our boys. We had no choice. Yameibi was to have met us today here, but instead came a day early, and executed the move efficiently, with every bit of our cargo here and none of the boys complaining of missing items from their bilums.

We managed to get off from Takari early this morning and by mid-morning were here. The seven Takari carriers, and five of the Pai'iti men were paid off and returned homeward. The others of the Pai'iti-Somai line remains with us, and we have signed on a dozen carriers from Umasa to help us to Ivaki tomorrow. Here there are two active kuru cases, both of whom I have examined today. However, I have not examined them as thoroughly as I should have, for I left this work until late in the afternoon when it started to rain. Yameibi delivered to us a stack of mail that he picked up for us at Oriei as he passed through there yesterday with our cargo, and this mail has kept Dick and myself busy all day. I have had to write long letters to Mother, Marion, Paul, and Mint and many must soon be written.

Along the trail we found a beautiful speckled snake over a meter long which the boys played with and which we finally picked up. I carried it a bit, and later Wanevi, to the consternation and shrieks of many of the boys. Here the boys have played with it all day until I finally took it and put it into an empty milk tin. I would like to get it back to the U.S. for taxonomic purposes. If we could get it back alive, all the better.

Ironapinti hamlet is the place of residence and of onset of both the current kuru victims of Umasa: Varemi, a woman of about 50 years of age with stage II kuru, still barely ambulatory with a stick and some assistance; and

Keniko, a woman of perhaps 40 years of age, who is nearly terminal, remaining incontinent in her house. Varemi might be over 50, although she does have a living boy of no more than 10 years of age.

Umasa hamlets are currently: Ironapinti, Imerewanipinti, Awasapinti, Umandi, and Ipontarori. Over toward the northern forested ranges an Emo (Gimi) hamlet has "spilled over" the range to this side from the main grounds of Emo. It is called Asapinti, by the Umasa Fore.

Umasa, like Takari, is building--and has almost finished--a completely new haus lain of round, floored, and fireless dwellings and separate haus kuks immediately adjacent to the haus kiap. Previously the hamlets have been scattered far about the valley. This is certainly a wide spread "fad" throughout the Fore and a new one!

January 27, 1964....Wanitabi-South Fore

"I want to go to sleep now. I don't know what everybody is doing banging around in here!"--so Dick irritably returns from the latrine to pull the paper from the typewriter Koiye is pounding on, and Koiye and Injuriwambio flee without another word.

It is a bit unfortunate that Dick on his last night in Wanitabi...should be so irritable...and it is further unfortunate that my accompanying him, seeing him off, yet remaining behind myself should be a matter too much smacking of paternalism, too much invading the one province of his own personal relationships with the Fore boys here in Wanitabi to be acceptable to him. He and I have managed congenial relationships this month together, but only "just managed" them and neither would like a second month of the same thing--it would be better to go our own ways. In almost everything in life this holds true: for two people trying to share new interpersonal relationships, independent of their mutual relationship. It will be tricky going to make Taipini a happy and valuable experience for Dick. He is no more happy about leaving New Guinea than I usually am. My presence has cut down his initiative and productivity significantly. Finally, I am far too demanding and dynamic and self-assured a personality to permit an easy interaction in our life together--and it is well we soon go our own ways.

We have cleaned up our patrol completely last night and yesterday afternoon here at Wanitabi after paying off our cargo line at Purosa. Mert did send the vehicle down with 40/00/00 in cash, as I requested, and as a result we have squared away our carrier debts. The 16 Purosa-Mugaiaamuti carrier boys who left us at Pai'iti and turned up the day before yesterday at Ivaki to help carry us to Purosa, have all been paid and the dozen school boys among them started their work today at the Seventh Day Adventist Keakasa school.

I have sent fully half our cargo on to Agakamatasa to await my return to my house there.

I now write by flashlight illumination, the Tilly lamp having run out of kerosene, and with Dick trying to sleep--an irritable, restless sleep, I feel sure.

There is always something unsatisfying and disheartening with leaving New Guinea and the groups one has lived with here--even after brief sojourns among them. One has to tear oneself away! This Dick is doing. Taking on his boy-payments and paying them tonight was perhaps unwise--again an "invasion" by me.

I finished reading Conrad's "Lord Jim" today and enjoyed it immensely. It is really a book for any New Guinea enthusiast! As a morality tale it astounds me. It awes me as a story wonderfully told and as lesson in Western moral philosophy. It causes one to halt and think and wonder. Dick has started it.

I wrote to Paul, Joe, and Marion--all letters which may anger and disturb them, but all letters I can only stand-by having reread them and finding them containing exactly what I am thinking and exactly what I want to say.

We are ready to "move out" of this Wanitabi house to Okapa, Kainantu, Goroka, Lae, Moresby, and Taipini--if Lois and Jack are there to help us get some work done. It has been a very full month!

I sent on to Okapa four kuru patient's blood specimens (two venules each from four cases in Ivaki) along with almost all the exposed film from our trip for air dispatch today, we hope, from Kainantu. Mert, the driver told us, was going out to Kainantu today.

January 28, 1964....Wanitabe, South Fore

We traveled from Takari to Umasa with the Pai'iti group of 15 boys and youths who joined us late in the night at Takari, carrying our cargo left behind at Pai'iti, under Yameibi's direction, and with an additional half-dozen Takari carriers. The last few I had difficulty rounding up for people were reluctant to carry here. The community was working at Takari on tobacco, with tobacco drying houses being constructed in the lower hamlet of the valley. Many Intamatasa people were visiting to watch the work and assist. Tobacco is the new commercial crop of the Gimi and southwestern Fore region, not planted in the rest of the Okapa region.

En route to Umasa we picked up a snake which we eventually carried in our hands...a snake about a meter long, with a small mouth. This speckled snake is called muniga by the Kuks (ngambaguta is their general term for snake). Fore: snake kura; this species: pakoi kura, ason, or kurareba...I get all three names!

Again I confirm that Dunkwi is the name of Mindini's "line" at Morandugai and not the name for all Moraei people. It does not embrace even the Kataraman group now at Moraei, nor even Agurio's "line", which is Umbulanddung'i, opposed to Mindini's Dung'wi (as I get it from Injuriwambio, instead of Dunkwi). Abiair'a'o is Injuriwambio's line. Yoyo'e and, of course, Nagai are Dung'wi, as

are also Mbaginta'o and Adjetmaga and Airai. Abiair'a'o includes also Wanjetnumu's line, his son Wanjipta, Aiwanji, Paretai, Tchowe belongs to another line, belonging to Wanteki and his family, called Nowaguri. I have not previously tried to work out these "lines" at all. It makes clear, however, where Jeff Booth got his name Dunkwi!

In Agakamatsa, the three main lines are Wanitabi, Ketabi, and Maivasa.

We spent a leisurely clear day at Umasa, a wonderful day of catching up on reading and work. I went down to the hamlets to examine the two active kuru patients at Umasa: Varemi, a woman of about 50, and Keniko, a woman of about 40. The former is already in late stage II (or early stage III) and Keniko is sedentary, now lying down near terminally in her house.

Place names for children's names: Moke, the Keakasa schoolboy from Intamatasa; Kamira, a youth from Ivaki; Papua, a second Keakasa schoolboy from Intamatasa; Agakamato, the youngster at Waieti!!

January 30, 1964.....Hotel Cecil - Lae, Territory of New Guinea

Dick and I, Koiye, Injuriwambi, Anua, and Wanevi are all in Lae tonight, Koiye having seen for the first time in his life Kainantu yesterday, and Lae, saltwater, the Markham valley and the sea, traffic--in short everything larger than Okapa--during the past 36 hours. Injuriwambi had seen Kainantu, but nothing beyond. Anua and Wanevi are "sophisticated"! Koiye had not even seen an airfield until we brought him to Taramo and Kainantu this year, and he had really seen close up...but that without aircraft.

The boys are staying at the Salvation Army Hostel here in Lae where for two shillings they get a meal and for an additional two shillings they get lodging, bring it to only 8 shillings per day room and board! They are well and cleanly accommodated. Here at the Cecil there is now a bar for natives adjacent to the "European bar", and I find a boy of about 14 from Manus occupying one of the rooms with someone from Manus...thus natives are boarded and roomed here now.

Harry Naill is in high politics, running as the only candidate for the Lae region "open electorate" and thus automatically elected. Many expect him to be speaker or chairman of the House of Assembly.

Dick and I have just had supper with Lucy--she hears well now and is a fine domestic mother of two girls (Michelle is five and Janet is three). Jack Reid is away up the Markham on their peanut plantation where they are building a new residence. We drove out to the Hostel at 7:30 to pick up the boys and bring them to see the cinema at Steward Theater where we have left them. It is Koiye and Injuriwambi's first cinema film!

Crowley will fly us off at 6 a.m. tomorrow to Taipini, weather permitting. It is a long and uncertain flight and I do not yet have Jack and Lois's confirmation of their presence at Taipini! If all goes well and we are with



them in good order at Taipini tomorrow I shall be most surprised and most happy.

The boys were very much prostrated by the heat and high humidity on suddenly arriving here in Lae from the Highlands and Koiye, especially, found the first hours here fatiguing and oppressive. We left them for lunch at the Hostel and at 1:30 p.m. when I called to pick them up using Des Aston's personal Minni-Minor (Morris) car, I found them all scrubbing up in the shower where they had already washed all their laplaps, other clothes, and even their rucksacs. We have paraded them about the Lae stores this afternoon, tried ice cream and sodas, and sat for about two hours on the beach. In the new park across from Hotel Cecil, Koiye and Injuriwambio, who had never flown before, were discussing the DC-3 flight to Lae in spellbound awe. Now they have gone to taste the ocean water to make sure it is salty, as they have been told it is. Flying over the Markham valley and River, Injuriwambio thought that this might be the "solwara" he had heard about. I assured him he had much more to see than that! Des Ashton in the District Office is very helpful once again and opens all maps and records of Kukukuku area work to me. It is fun to take the boys around Lae and they seem interested and alert and receptive. We have left Dick's two crates of artifacts with Ken Seato for shipping by sea to the U.S..

January 31, 1964....Wau, Morobe District

With an achromio-clavicular subluxation and probably, but not certainly, no fracture, I am luckily out of an amazing accident which crowned our pleasant and valuable day here at Wau.

Up at 4:45 a.m., by cab at 5:00 a.m. to the Lae Salvation Army Hostel, and by 6:00 a.m. preparing to leave in Crowley's Cessna 185, Crowley himself flying, for Taipini...the four boys, Dick and I and all our gear weigh 1,000 pounds together and the plane can carry 1,100 pounds payload on this trip.

We had a beautiful low altitude flight along the ranges east of the Lae, Mumeng, Bulolo, Wau road with extraordinary views of Mumeng, Bulolo and Wau. Then leaving Wau valley we entered the high, uninhabited ranges to the southeast of Wau and approached a huge buildup of clouds and rain before us. Over Lake Triste we were buffeted about severely in high winds and circled about and started back for Lae, giving up the chance of getting into Taipini. I asked him to leave us at Wau and if possible to fly us tomorrow from Wau to Taipini! We are now hoping for good weather and a clear trip to Taipini tomorrow.

We landed on the steeply sloping Wau airstrip at about 7:30, walked to the Morobe Hotel, and finally, when the District Office opened we called Sinclair the Sub-District Officer, and he provided us his station wagon to bring our gear from the airstrip to the hotel and the boys to the native labor compound after buying them rice, sugar, tea, tinned meat, and frozen steak at Burns Philp. Dick and I got to the hotel in time for breakfast but were depressed by the segregated atmosphere with our boys looking on and we eating. The haus passenger at the government's native labor compound is a decrepid barn-like structure, dismal but fortunately clean. The boys were a bit depressed by their quarters after seeing all else in Wau was airy, clean, and

comfortable, especially the cool breeze and the beautiful clear day in this pleasant climate. I tried to move them in with respect, found firewood, cooking pots, and other facilities for them, and then Dick and I went up to meet A.D.O. Sinclair at the government office. All was election and balloting preparation here as everywhere else in TPNG!

Sinclair, hearing of my interest in the Kukukuku country, promptly told me of his early (1951) patrols into Kukukuku country and dug up all old Wau records going back to 1943-44-45 ANGAU reports. He showed us an old miner's map extremely well drawn in the 30's (193 !) by , one of the few existing copies of which he has on his office wall. We took it down and Dick has tried to photograph it on the Sub-District office porch. It is old, ripped, and frayed but a very valuable map, excellently done! All the rest of the morning I poured over old Wau, Mumeng, and Salamau patrol reports from Angau days and all those dealing with Kukukuku type people or those immediately adjacent, we copied using the 35 mm. cameras. I only hope the film can be made into legible prints!

After a good lunch at the hotel we slept for one hour and then returned to the office to study old patrol reports further and to photocopy those most concerned with Kukukuku-type people. When the offices closed at 4 p.m., I borrowed a government Landrover and driver to take us to Forestry Service labor camp with our four boys to see if any Kainantu and Okapa boys whom we know, were there. Our driver decided to change vehicles, because of loose steering in the Landrover we were in. We started down the long steep hill adjacent to and parallel to the steeply sloping Wau airstrip along the edge of which the road was built. Suddenly our driver became aware that we were gaining speed and out of control with no brakes or gearshift braking. Thus, he looked helplessly at the steep narrow road before him, no possible turnoffs, ditches, or buildings at either side, and children and adults lining long stretches of the roadside below us, as we speeded down the hill. In an amazing presence of mind the driver tried to climb the steep bank onto the airstrip but almost overturning, we rolled back onto the strip and quickly coasted again to ominously high speed. Immediately he decided to overturn our vehicle and at over 40 m.p.h. hit the absolutely vertical six foot high wall which forms the bank of the airstrip along the road and the vehicle climbed onto it and ran almost tipped to a full horizontal, like a toboggan, before we suddenly toppled down, the Landrover sliding to a stop on its side exactly before the police station of Wau. We were all shaken, frightened and stunned, and as we climbed out from our pile of bodies, it was miraculous to find no one seriously hurt. With astounding British aplomb, the Caucasian director of police came from his office, watched us crawling clear of the capsized wreck, awaiting my emergence, and then quietly asked us where we were heading and without awaiting a reply, asked us if he could give us one of his vehicles to replace the one which had overturned. Thus before the stunned and frightened boys could recover, we were off again down the hill, which could have very easily seen our deaths, on the way to the work crew barracks of the Forestry Department to find the Eastern Highland laborers, hoping to find Takiwari from Agakamatasa and Kokina from Purosa (Ketabi) who should be there. We found Irafo and Moife, Usurufa boys, but no Fores. Many Mobutasa, Agamusei, Amoraba, and Tainoraba Awas were at Bulolo along with a few Fore they told us, and many from Auiana and Oiana groups. On route there my numb painful and on movement of my shoulder or chest it clicked and "caught" and

I feared I had a fractured rib or shoulder although the shoulder joint itself seemed okay as did the humerus. The boys, who at first seemed uninjured, also showed me severe scratches and abrasions and bruises and Anua and Injuriwambio had injured toes.

We thus headed back for the Wau Hospital, where we have found no fractures among us, but I am in a sling with a somewhat incapacitating subluxation of the clavicular-achromial joint on the left. I hope that is all!

February 15, 1964....Waieti Hamlet, Agakamatasa

Election day, and finally a return to journal writing. I have moved into my house here at Agakamatasa, and find myself the owner of a far larger and more luxurious residence than I had ever contemplated having here. The house has been built by Wanevi and the others according to their plan, their direction, and their ideas, and it has not taken even a day of planning or attention on my part from beginning to end. In this lack of personal supervision and attention this house differs from anyone other outsider's residence in the Okapa region, and it proves conclusively that one need not spend all the time usually spent in "establishing" oneself. The house is not luxurious by European standards, nor does it have a timber floor or walls, but it is a well-built, plaited bamboo-walled, ceilinged, and floored house raised some two feet from the ground on poles, with nine foot ceilings, and a steeply pitched, well-thatched kunai roof without a leak thus far in the heavy rains of the past two days.

The old Seventh Day Adventist Church standing nearby, as well as Wanevi's old house and the Seventh Day Adventist missionary's house, have been torn down, a large kuk haus built, and the entire Waieti grounds landscaped with plants and well fenced in, and the grounds cleared so that the house now stands alone beside newly rebuilt Waieti in a wonderful location, one I had never bargained for as it was occupied by the Seventh Days. The new Seventh Day Adventist church and mission, as well as Wanevi and Pigwaseta's new house, are located together in a new site below the Wagarori Aid Post and above the haus kiap site. Tubinaga and Anabu have the closest neighboring house on one side and Ini, Waijeke, and Mbaimbana have the house behind mine.

Pigwaseta has a new baby born in November; the boy is named Andru. Toni, the first son, is well and robust. I am really happy to see Wanevi's fine family, but never forget that it is heavily kuru-threatened.

Thursday morning at the Purosa haus kiap Koiye, Injuriwambio, Undopmania, and Kene--the four boys with me--and Togaba, Anua, and Tarubi,

who joined me there, tried long to get cargo carriers for the Agakamatasa trip. By mid-morning we had only half the cargo or so on the trail, and I thus abandoned the rest under Anua's and Tarubi's care and started out, advising them to get it off that day, if possible, otherwise to follow in a day or two with Agakamatasa people returning from the elections. Before I took off, the Landrover with two policemen from Okapa and election supplies had arrived.

We set off on the trail above Ketabi and I walked without any significant rest all the way to Agakamatasa, arriving in mid-afternoon with a mild headache, and rather damp from two drenching rainfalls along the route. However, the trail improvement on the Agakamatasa side had not been amply indicated to me by Dick's remarks. Instead of the previous, somewhat cleared track, it had been made into a wide graded trail over long stretches with road-wide clearing of the forest for several kilometers of the ridge descending toward Agakamatasa. Thus, the trail was far easier than usual.

However, soon after I arrived I was laboring under a splitting headache. Beyond Irebunasi we had met most of the adults and many of the children of Awarosa bound for Purosa for the election events and beyond this, about a half-hour, we came upon most of the Agakamatasa adults. Wanevi and Waiajeke were among them. Thus, I made all my greetings on the trail, and after effusive welcomes which made the latter part of the trail most pleasant, we finally climbed to Katitikabisi and dropped to the Wagarori Aid Post. Wanevi and Waiajeke turned back to Agakamatasa with us. I stopped at Wagarori to greet Levit and the many Agakamatasa people who had not yet left for Purosa, and then, pleased and marveling at the wonderful view of the house Wanevi and the villagers had built for me, I descended to Waieti. Soon after arrival, however, I was suffering from such a severe headache that I could no longer stay on my feet, and I made a bed and tried to sleep. I vomitted after a sudden bout of severe nausea and then for a full six hours I suffered from extremely severe headache, sweating and chills, aura, and a succession of seven bouts of nausea and emesis with protracted retching. I had eaten nothing more than a cup of Milo for breakfast and had not had anything the previous day for lunch or supper but Milo and a piece of cake which Mrs. Hornabrook had given me. I was not hungry; thus, the period of over 24 hours without food had not interfered with my hike here, but it may have initiated the headache which developed to almost as severe a migraine as that I had at Nosiguri. Thus, twice this year I have been severely prostrated by these headaches with far more severe headache and a great deal more nausea and emesis than I have in the past associated with my rare attacks of migraine. I thought that this attack might be malaria, and when I started to have chills and sweats, I was fairly sure that my somewhat erratic chloroquin prophylaxis had failed me. However, Undopmaina finally located the thermometers and my temperature proved to be normal! I lost in vomitting all the Nivaquin (chloroquin) and aspirin I tried to hold down. Finally, toward nightfall, I fell asleep, and by morning I awoke refreshed and without any but a slightly lingering headache.

Yesterday morning Wanevi and most everyone of the village left for Purosa and the elections, leaving only Ini and all the younger children here with us. Koiye and Injuriwambio and Undopmaina have remained behind with all the dozen or so small children of the village who have flocked into the house from morning through nightfall. They are all playful and wonderfully affectionate, and none of them have the slightest reticence or fear with me, which is most pleasing. I find the constant jest and chatter and bids for attention of the dozen-odd youngsters about me entertaining, but it has taken much of the first day to establish a pattern of work in spite of it. I have managed to make a new file of all residents of Agakamatasa with family histories and all recent deaths accounted for, and if this can be polished up in the next day or two, it will serve for a rather definitive picture of births and deaths during the past decade here at Agakamatasa and to elucidate the complex pattern of migrations in and out.

Wetagamo has had troubles with Agamusei, where, Levit tells me, a woman died from sepsis after a retained placenta. The Agamuseis blamed the Agakamatasa people for sorcery which caused it, and have since threatened to kill them. The Agamuseis have been watching the Lamari bridge, Levit claims, and they may kill any who cross, and thus he has not made the trip to Moraei as he would have otherwise have done. Wetagamo fled to Agakamatasa, complained to the kiap that he could not see his wife and possessions, and took a letter from the Okapa kiap to the Wonenara kiap via Mobutasa, which resulted in his return to Agamusei with two Wonenara police and with their aid he took his possessions and his Agamusei wife with him back across the Lamari to Agakamatasa to live here at Kesiri. Now everyone here is afraid of visiting Agamusei and tensions are higher than for many years. This may force a change in my route to Wonenara, for I had planned on stopping at Agamusei for awhile, or at least visiting it with Hornabrook.

Since many of the Mobutasa and Agamusei youths and even some from Amoraba and Tainoraba are off as Highland laborers to Bulolo one can expect some improvement in the situation when they return. But for the moment-----?

Ata, Iwagu, Undopmaina, Koiye, Ai, and Bube are all screaming with glee and laughter as they make faces into the mirror or the Tilly lamp sides, and howl with laughter at the resulting caricatures of themselves.

Today, the six Kukukuku men with Watse (Morandugai boy of about 10 years) whom we met on the road into Okapa when we came out to Purosa two days ago, returned here in the morning, and within an hour of arrival were off carrying for me a good deal of heavy cargo to Morandugai. Thus, they have taken one heavily packed cargo box of supplies (blankets, bush knives, axes, soap, medical supplies, etc.), a half bag of rice and a case of tinned meat with them. Pandanumo and Mbungalo and Wantaki from Morandugai and Yuwenta, Kwamaanginumo and Tuna from Simbari took these loads and I shall pay them when I finally travel to my house at Moraei. It is a good feeling to have further supplies there and not be dependent upon a huge cargo line when I finally am ready to switch residence to across the Lamari.

Yesterday evening, after nightfall, many of the Awarosa and Agakamatasa youths and men returned carrying most of the cargo we had left at Purosa. They had been told that they would not be voting until Monday, and thus they had returned. Many others, however, have remained there. I now have only one cargo box and one bag of salt there. They also brought stacks of new mail and air shipments including stationary and recording tape and films from NIH. Thus, I had to work until late answering the urgent mail, making out checks, and preparing mail for Waiajeke to take back again to Purosa. I have finally written to Wolfgang and to the Klaibers in Weinheim, and I got mail off to Mother and everyone at the laboratory...most complaining, as usual, of one thing or another.

In mid-afternoon yesterday we recruited the 12 small boys and girls who had been clustering about all day, and with them cleaned the remaining portion of this side of Waieti, and fixed the fences about the flower beds which have been planted. This has taken away a further flybreeding menace, and the site is very clean.

February 16, 1964....Waieti hamlet, Agakamatasa--South Fore

"Mi no laik stap long kanaka. Mi laikim Moresby. Mi laik stap long skul long Moresby. I no gud long ples kanaka."--and thus Injuriwambio greets me this evening as I sit at the desk trying to organize my work and overcome an inertia left by my bout of illness. Alone in Agakamatasa with only one adult South Fore Ini, and fourteen small children and my three boys, Koiye, Injuriwambio and Undopmaina--for Obariso took off today for Purosa again following the older boy who returned there also for tomorrow's voting--I am very happy here, and working productively, if slowly. After all, it is a weekend, but I have rarely used that as an excuse for slow work.

I finally got the cinema out, loaded, and took 250 feet of film about Waieti today. I also did some further still photography and tried to use the Nagra III, only to find it would not work. Its batteries did not give more than a flicker on the "probe", and fortunately we have a set of 12 drycells from the Okapa trade store which I then tried replacing the long-life special nickle-cadmium cells Dick had put in. These have worked very well and we are recording very satisfactorily. I have thus made half of a long-playing 5 inch tape of the boys stating and mumbling messages in Pidgin and in Fore to Mbagintao and of the boys singsing-ing outside the house, and gossiping in the house. I am worried lest we have trouble getting enough batteries to keep the Nagra running, and I shall send out for more batteries tomorrow. However, to get some recording done here already justifies hanging on the the Nagra.

Proofing and correcting Paul's measles paper on the Micronesian immunization program was no easy chore and I did not have the time nor mood to do the thorough job I should like to have done. However, it is now in

adequate state for final typing and submission, I think, I am trying to get into a mood for actually writing a few papers from here...but the lack of dictionary, reference journals or even notes, makes such work always difficult. I hope, nonetheless, to get to it in the ensuing days. Oh, to have months and months to spend here. Slowly I could think out all that is on my mind. Already the necessity of limiting my sojourn hampers my attaining any real tranquility.

Aga-Yagusa North Fore have taken on the "Service" role for Agakamatasa. Thus, the Ivaki Fore Seventh Day Adventist missionary who was here has left for Aga-Yagusa (his name was Kama, his wife, Nagami) and a Fore missionary from Aga Yagusa has come to take his place. Levite from Aga-Yagusa is the Aid Post orderly, and besides his wife and baby, he has three youngsters from Aga-Yagusa here with him. One, Tatagu, a boy of about 11, is still here with him, but Pagau, the slightly older boy has returned home. Thus, mission and government medical service have brought here a total of nine Aga-Yagusa immigrants to Agakamatasa! With the two new Moraei and one new Agamusei wives, the population of residents may be increasing. Injuriwambio has apparently shifted residence to here semi-permanently, as Waiajeke and Mbagintao did before him.

The days have been cool, the late afternoons cold, and the nights until after midnight extremely cold with wind and rain. Thereafter the skies have cleared and it has warmed up. It is exciting and invigorating to live here, passing in and out of the clouds throughout the day.

Agakamato cries very easily, and in his exuberant playfulness, often gets struck, sometimes by accident, other times with purpose, by the others. He regularly sits down and cries, bringing tears to his eyes and lying about sobbing loudly for a long time. Yesterday he kept it up for a full half-hour until I finally assuaged him with some gifts of food. His crying is part acting, and in it he is never far from laughter...and he seems to bear no grudges and to forget his many affronts quickly.

Early tomorrow morning the Aga-Yagusa immigrants will travel to Purosa from their Wagarori sites, leaving no one at all in the whole Agakamatasa complex but the people I have listed....mostly the children.

Wanevi's second son, Andrew--whence the name Andru I was told a few days ago and recorded as such--was born on November 3, 1963, according to a note left with Wanevi by a native Seventh Day missionary. He is healthy looking boy, light skinned like Pigwaseta. Toni is also light skinned from his mother's side where the red-skinned trait is prevalent.

I have put up maps of New Guinea, Australia, and pictures of the NIH and American buildings, along with a series of art postcards, mostly Van Goghs, on the walls. When I arrived, Wanevi had already had three of the photographs we sent here--one showing Mbagintao playing with all the small boys and girls, one of Mbira and Erewani, and a picture of the Kuks and Agakamatases looking at photographs displayed on the wall of the haus kiap--on the walls along with three pages torn from the French magazine I left here last year (these all showing advertisements for women's lingerie, brassiers, and dresses, with appropriate models). Thus, French pin-ups were

their choice of all the pictorial material they have had on hand...not a bad choice!

"Em i no skul tru...Em i geman about!"--just now, as I type, this is Undopmaina's penetrating comment about the aid post orderly school he is now attending at Goroka!

I have spent an hour or so each day with the boys on English, arithmetic, and writing--and they add another hour or so of effort in this direction to my day with their special requests...it is discouraging to contemplate what an effort it would be to give full attention to their thirst for schooling, for to satisfy it would leave me with absolutely no time for anything else!

I have Joe Morris's letters of recommendaiton, a letter to him and one to Larry, and a letter to Tony to write to discharge my correspondence obligations to the Morris clan alone. Thus, I could spend my whole sojourn here on paper work pertaining to the laboratory and my personal "Western" committments...it is no wonder that many go with long delays and much procrastination on my part.

In spite of repeated reinjury to my shoulder, I am now considerably better, and today was the first day with a really useable left arm.

February 17, 1964....Waieti Hamlet, Agakamatasa--South Fore, Okapa, E.H.

It was cold and raining all morning, and we never emerged from clouds until noon time. Thereafter, however, the day was clear, and by mid-afternoon it had dried out sufficiently for the boys to play kickball. Levite and the Seventh Day Adventist native missionary left at daybreak for Purosa with mail containing the first cinema and still films I have shot here, plus letters for everyone in the office. However, I have not been able to get to paper writing thus far, and there is much necessary work undone which has nothing to do with my attempts to get new work finished here.

I finished recording the first tape, using only one side of it, not sure whether the machine is recording on half-track or full track, and I shall thus send it back with recording only on this one side. It contains further of the children's spontaneous singsings. Thus, in spite of the rains this morning, I found a dozen of the small boys out with Agakamato and Wagaro and Ata taking the lead, all decked out with crude planks for shields, floral decorations on the shields, and some costumes of leaves and flowers, singing and dancing about the center of the hamlet in the rain. I asked them to come over to the ground before my house, and from the open door I recorded their singsing and even attempted some f 1.4 opening cinema of their performance. It was totally unrehearsed and staged in play and not for my benefit, and thus its spontaneity was fine and this is also evident from the tape.



Later in the day I wrote a long letter to Roger Traub, a reply to his self-unburdening letter which has long been on my mind. I then turned to reading further articles in the Winter 1963 issue of Daedalus (The American Reading Public) which Marion has sent me, and later, with the help of Injuriwambio, Koiye and Undopmaina made a large kite using bamboo pieces as struts and wrapping paper and rubber cement to glue on the paper. We never really got it to fly, yet it rose steeply in the winds, broke its struts, and after repairing these, it again only flew feebly. We have here no adequate unobstructed field to get it aloft, and in the narrow cleared areas we have too much obstruction from fences, houses, posts, and trees. However, the idea of the kite was clearly demonstrated, and its ability to soar aloft briefly clearly established. It was not wasted effort, and with a bit more work and persistence, I could get one to fly well from here.

The Agakamatasa populace began to drift in the mid-afternoon, having taken part this morning in the elections. Wanevi and most of the youths were excluded from voting--because of their age, I presume. In Wanevi's case it seems strange...a father of two and one of the major men of the village!

This evening I have had all the youths, many of the women and small children, and finally, many of the older men, sitting in my house. Yanagaia and his son Eruasa have been here for many hours, and finally Eruasa gave me the story of the "Tree-Climbing Kangaroos and the Dogs" ("Kuarai Puesai") and later an Akaresa story of "Akaresa at the Umato mountain of Awarosa." Yanagaia was unwilling to tell the stories, but he briefed his son, who then told them in a strong, clear voice. I also recorded some "overhearing" of Yanagaia briefing Eruasa, his son, on the stories before the son told them for the Nagra recording.

The returning Agakamatasa men brought back the one remaining cargo box from Purosa--actually Tsokam, Agaga, and Mbaimbana and Waienevi carried it, four of the small boys who have been on trips with me for years and have now, this year, shot up to near-adult stature. The heavy full bag of salt remains there, in Mugaiauti, and I shall have to send carriers for it!

Undopmaina now suffers from a severely bruised forearm from playing kick-ball today. Already in three days of play with the soccer ball we have had a half dozen minor injuries---as usual!

February 18, 1964....Waieti Hamlet, Agakamatasa

We have been working at constructing bookshelves from old boxes and in getting the house into better shape for a few hours this morning, and only now do I turn to other work. Wanevi and Kukumba are about helping, and Waiajeke has been repairing canvas chairs and other things requiring sewing.

I am now ready to get intensive work done here in Agakamatasa, and with the full populace back, I can work on correcting and amplifying the village population lists and genealogies.

During the mid-afternoon, Neiko and Karame from Morandugai-Moraei arrived, both coming with large and multiple tropical ulcers on their legs. We have given them injections of procaine penicillin and bandaged their sores. They tell me the cargo I sent to Moraei has arrived in good order.

Neiko was carrying a small bone dagger under his arm bands, and was dressed in fully traditional Kukukuku style with kanila and mulu and muniri, while Karame is dressed in laplap and shirt.

The older men of Waieti made a large mumu in the afternoon, with Neiko and Karame as guests, and they included in it a great deal of kumu and pitpit. We were given a large share of it when it was taken out. Anua arrived today with a group of boys from Purosa, along with Togaba and with Koka and Paku. The latter two keep looking at me sheepishly, anxious to be part of our group, but suspecting that I will not include them, and rightly so. Thus, they are an awkward presence, dedicated to Dick, hoping that I will supply them with the same privileged position they have had under Dick, and yet knowing that I will not. Koka has thus come each time to me at Purosa and Wanitabi telling me he will be off, and as I accept this without comment, he disappears to show up again with the same statement. It is unfortunate that one simply cannot divide oneself indefinitely, and give everyone attention. Already the local boys are jealous of Togaba and Anua, and in their absence have made strong bids to replace them. I had not known when Togaba would return, and made partial commitment to Yandobi from here who wanted the job of my cook since he has worked as a haus kuk at Goroka for many years, but just as I partially agreed, Togaba and Anua have showed up. I have agreed to take Pauwa and Ata and perhaps also some of the other small children onto my line now, and I enthusiastically welcome this addition. It would be unwise to complicate matters with the older boys, such as Koka and Paku, who are in an already complex and not too satisfactory relationship with me. I shall do better by sticking to my Agakamatasa and Moraei and other Kukukuku friends.

This evening Igaga has told stories into the Nagra III and Tiu has given rough recapitulations of them. Tiu himself has given a story he has from Pekieba, his father, to the effect that his paternal grandmother was an Aurugosa Kukukuku woman. This spontaneous story confirming my long-developed suspicion that Tiu's line and the Maivasakina were part Kuks or had definite Kuk affinities is most interesting. The story is half myth and legend and half reputed fact related to currently living persons, as are many stories here. Eruasa also gave another story for recording today. Thus, we have succeeded in recording a good number of stories. I think Dick has the Nagra III set at 7 ½ inches per second speed and half track recording, but I do not know for sure. I have been using only one side of the tapes, and have not changed the speed. Limited as I am to no further batteries until new supplies arrive, I cannot record all I would like to. We have ample tape on hand right now. Plenty of cinema film and tape arrived in the last air shipments which were carried out to me from Purosa.

Eruasa worked on making a bench from crude timber today, starting with the tree-felling itself, and Wanevi, using the same materials, made a shelf in the store room. Mbaimbana made a wash house, and thus we have improved the site a good deal in one day.

February 20, 1964....Waieti Hamlet, Agakamatasa

An eventful and tiring day with still a feeling of very little done. I have just packed the next eight rolls of cine film, bringing to 1000 feet the Ektachrome Commercial exposed here at Agakamatasa, along with three rolls of black and white film and the two tapes I finished before the Nagra III "broke down". Whether the batteries are the cause or not is what I do not know, for I failed to observe any slow decline in their power, and suddenly I get no flicker of register on the potentiometer. Thus, whether we have a real problem with the electrical circuitry or a switch problem which I probably cannot solve here, or whether I suddenly exhausted the batteries without knowing or observing it, remains unsettled in my mind. The old set, which I replaced with these new ones a few days ago, was similarly "totally dead" without the motor budging or the potentiometer registering on the Nagra III at all. I hope that this is the case and that we are not at the end of our recording for this trip! Fortunately I have two good tapes...but with the Nagra still working and plenty of batteries on hand, I would surely record another dozen tapes!

Ata, Pauwa, Andembitsu'o (whom they are now calling Itaru), Waiajeke, and Ai and the two Kukukuku youngsters who arrived yesterday together from Moraei: Pinumo from Morandugai and Waiowaio'me from Keikwambi, Simbari, all tracked down the steep trail to Kuwarupinti where we found most of the populace at home or at work in their gardens. They are all anxious to show me that the Kuwarupinti site and its adjacent gardens--or the nearby kunai hillside would be fine airstrips. Actually they would make minimal possible small plane strips somewhat inferior to the treacherous strip at Wonenara. It is good to know that even such possibilities exist here, but it is pathetic to see how hopeful and anxious these people are to bring the outside world in to them.

Everywhere the problem is the same--the Fore and the neighboring Kukukuku, as many other Highland people, want education, want to speak English, want to see Australia and America and the world. The youths uniformly tell me, "Mi no laik stap long ples kanaka". Now Waiajeke is using his fear of kuru and his claim "ples em i ful up long kuru; mi laik lusim ples kanaka," to further prompt me to take him away. Every single youth who has learned to read and write Pidgin at Levit's school is anxious to leave the "ples kanaka" and go to the coast, to Australia, to America--anything to get away from here! Thus, civilization has brought with it a wanderlust, a restlessness, and curiosity, and a dissatisfaction with the peasant lot of the primitive self-sustaining village. Those youths and older boys who have caught even a glimpse of the outer world want more and more of it, and less and less of what they have here. How little they seem to appreciate all they really have. However, all that they have gets them nothing from the civilized world, and it is the things of civilization, the products of civilization, the machines of civilization, and the broader horizons of the civilized world that they now seek, and I have nothing I can offer them. Thus, they all want me to leave them in school in Port Moresby, in Lae, in Goroka, at least, and most start with America and Australia as their choices! That none could qualify for a school beyond standard three, and that there is not even a real standard three level student among them is the tragedy.

I am sorting through letter after letter which is left with me surreptitiously, and with a good deal of embarrassment, by the boys Waionevi

and Agaga; Kukumba and Koiye for Kukukumba; and Anabo and Pakilo all write and all have quietly cornered me when no one else was around to plead that I take them away, leave them anywhere else in school, leave them on the coast, anywhere....I have a great deal of difficulty explaining the problems, the economics of the matter, and their real educational lag and the hopelessness of correcting it--and it becomes no easy task to defend the beauty and the tranquility and the wealth of what they have here. I could do this by paying more extravagantly for everything including food they bring me and their services. I could not afford to do so, and this would be a naive solution.

There is no easy way out! No solution! Cultures in change and transition are always a problem, growing is a problem and dislocated growth and interrupted maturation is a more severe problem.

Neiko and Karame from Morandugai have had their third daily injection of 106 units of procaine penicillin for their ulcers, and I have treated Pinumo and Waiowaio'me (called by the Fore, Okapa!) for their sores. The long trip here alone of the two boys of only about 9 and 11 years, each, is strange, but less strange in the light of the new Moraei marriages into Agakamatasa--all into Kwarupinti hamlet. Thus, Pinumo's mother has remarried, and is now the wife of Yorasa (his fifth!). She is Ariwara'e, and Pinumo is one of her sons by her former Moraei marriage! Thus he is only coming to visit his new father and his full mother. The older boy, Waiowaio'me (or Okapa) is a Keikwambi Simbari youth, already speaking a bit of Pidgin and already somewhat conversant with Fore--apparently making the transition that Mbaginta'o and Andembitsu'o have made.

At Kwarupinti, the strange wa'e--part kwal anga, i.e. a Fore men's house raised off the ground and floored in Kukukuku fashion--is still standing, but in its last year, I fear. I have urged them to rebuild this strange and very clean and comfortable structure in traditional style and not to shift to anything "modern", but I do not know what effect my urging will have. This is the cleanest and driest and also most comfortable and airy yet warm house of the Fore region in the native villages, and it is of a unique "traditional" style. I hope they do it over in the same form. The last remaining wa'e of the Agakamatasa-Awarosa region which Tubinaga and Yobiga lived in is now down, and the old site on which it has stood all these years shows the scar of its long presence, but that too will soon be gone.

Kwarupinti has suffered a great deal of garden and coffee garden damage during the absence of the people at the elections at Purosa. Wate, especially, has suffered. I have given Wate a pair of new undershorts and a T-shirt and a white shirt, telling him they are from Mbaginta'o.

Epena, Wikabara, Abusa, and Yorasa, all took us through the gardens, showing us the fine growth of the kene (Fore for a leafy bush used as "kumu"), and other foods, and showing me the virtual orchard of the special new variety of pawpaw I sent them, which Gabriel Keleny had gathered together for me and given me some 5-6 years ago in Port Moresby. These pawpaw trees they tell me are the ones I gave them, and they are now all bearing fruit heavily. Epena gave me two huge pawpaws which we carried with us back to my house. Of course I have also sent her payment for them, for nothing here is a gift, and the most serious mistake one can make is to accept a "gift" without paying for it

--eventually. However, the "giver" will not hesitate to remind one soon enough of the unpaid debt.

We stayed about two hours at Kwarupinti, where I took a few hundred feet of cinema pictures. Neiko and Karame followed us down, and thus we had a large retinue--mostly of people who usually visit Agakamatasa by being here at this lower hamlet, through which Fore Moraei-Kukukuku relationships are maintained. Here there are now three Morandugai Moraei Kukukuku wives. Thus, Uguma has his wife from Moraei here with him, and Yorasa and Abusa have both now recently got their wives from Moraei. Thus, with three Kukukuku women, a good deal of Fore kuru loss has been offset, and my notes of the past several years documenting the gradual arrival at this state of close relationship are of considerable interest. With Wetagame back at Kesiri with his Agamusei wife, the total is four new kuru-free women now here resident as wives of local men--making up for much of the kuru loss over these last several years!

Tubinaga followed us to Kwarupinti. We had met him on the trail hunting for a pig he was to kill for mumu. Later in the day Wanevi was embarrassedly sitting in the house discussing things I did not follow completely with others, and finally he told me that Tubinaga had mistakenly killed a pig belonging to Kwasa, thinking it was Wanevi's pig that he was after. The embarrassment--and yet the humor--Wanevi saw in the whole matter was most interesting--especially his desire to retreat from the episode to my house for a while and discuss it and even laugh about it with me! Of course it will require considerable make-up payment.

At Kesiri today a huge mumu was held, Tiu's "line" killing two large pigs for it. We left Kwarupinti by the direct trail for Kesiri, which meets the Waieti-Kuziziperekiri-to Kesiri (and Arinoguti) trail just at Airinoguti and thus is a considerable short cut from a return to Waieti. At Kesiri I took a good deal of cinema of the mumu and of the newly built village which has transformed Kesiri from its old rather filthy and cramped style to a rather expanded, somewhat cleaner village--still cramped! Nine new rectangular houses are well lined in a very straight line and almost all finished.

Koiye and Iginemi followed us there and did so by tracking us first to Kwarupinti. Koiye has moved back to Wagarori with the dozen-odd boys from Awarosa and Agakamatasa who are at school with Levit--and he has moved well back into village life, but he corners me on the trail today with the same request: not to leave him behind in my patrol, to take him to Menyamyama and let him stay somewhere like Port Moresby, on the coast.

The reality of my having brought one boy to the States makes it no longer a ridiculous possibility, a harmless suggestion impossible of realization. Thus, everyone else feels rejected and everyone else makes a further bid, if they think there is the slightest possibility. I have tried to point out regularly that my financial resources are not up to duplicating the matter, and that is completely neglecting the major matter of the unsuitability of most of the boys for a late attempt at European schooling (as Mbagintao himself is, but he is, yet, far more receptive than most others would be) and the uncontrollable moodiness of most of the youths faced with civilized sophistication, competition, etc. Finally, the political troubles with the Australians are not to be underestimated.

We have been brought a leg of pig from the Kesiri mumu for which I have paid a small knife, a bar of soap, and a pack of matches, and two shillings. A second shoulder of pig has been brought to me by Kaina, which I have told the few boys here with me to share.

The only "foreign" boys here are Anua and Togaba in the haus kuk along with Paku and a like-aged friend of his, Bena, and now, yesterday, another Ketabi visitor. These Ketabi's are not very welcome here, but Anua and, to a lesser extent, Togaba, have slowly earned their position as permanent members of my line. There is still effort to get me to dismiss Togaba. Finally, Kene has returned with his usual requests for pay and handouts which are not excessive but far beyond those of the whole rest of the group together, and he does in general less work than any of the others. However, even he has his saving graces--and on patrol it is often he who is ready to go on the longest and most perilous return journeys with necessary messages or letters or suddenly, in a tight spot on patrol, he pitches in with the most vigorous and difficult bridge building, trail cutting or camp erection under most adverse conditions. The long term loyalty I have received from the boys is the result of my long term loyalty to them, and I must always be careful not to damage it. Now, by taking on Ata and Pauwa I am fairly safe, but every time I take on new youngsters it creates a crisis.

Those few "outsiders" here are the only boys I have to feed. The visiting Moraeis are guests of established reciprocation as are all the visiting Mugaiamuti and some of the Awarosas. Awarosa has slightly awkward relationship--close to some of the Agakamtasas, and distant and hostile to others.

Levit has taken on all the youngsters of the village into his school work, and this brings him to 30-35 boys at school. Only a half dozen read and write Pidgin well, and telling me of them, he usually inserts "Na Mbagintao, mi skulim em long rid na rait na rait na mi givim em long yu". He and Wanevi feel largely responsible for my taking Mbagintao to America. Wate makes no such claims or statements and is shyly retiring, but it is he who first brought Mbagintao to the Kuwarupinti Fore, adopted him, and kept him here. I gave him yesterday a set of underwear and a white shirt and will give him some further gifts from Mbagintao. The ticklish matter of distribution of gifts is a very serious and difficult thing as always. Payment for the work on the house has been yet more difficult. Each time Wanevi gave me a list of those to pay and an estimate amount, I paid these only to have others become disgruntled and angry, not having themselves been paid. Always, Wanevi discounted their contribution as insignificant, but always he has tactfully settled by stating some amount I should pay them, and this has now gone on for three days, and only a few more can remain.

The slow resurvey of housing, gardens, marriages and deaths, and social setting has taken most of my time here, and that, together with the films and tapes is the major accomplishment of this week. It will give me the basis of a long 8-year study of Agakmatasa which I shall try to write back at NIH, and it is my hope that we shall get sufficient material for it all this year. The vast records of past years are sufficient to give this study considerable depth in time and penetration.

Undopmaina has an unexplained fever of 1006 today and is suffering from two muscle injuries from his kick-ball playing. The kick ball has kept everyone playing several hours each day, but the life of a kick-ball and pump is seldom much over a week here, and I wonder how much more they will get out of it.

Having now wandered to all of the hamlets, and made an almost complete genealogy of the entire resident population, I am ready to revise, check and finalize it today and tomorrow.

I have not yet set a date for moving across the Lamari to Moraei, but I now think of Wednesday or Thursday of next week, asking Hornabrook to come here Monday or Tuesday, if he can. I have prepared mail to go out, along with a package of the film and tapes completed thus far.

February 22, 1964....Waieti Hamlet, Agakamatasa

Kesi is sick! Kene has brought him in, finding the shivering five year old without anyone attending him, suffering under the floor of one of the new, yet unoccupied houses here at Waieti. Kene carried him here, and I find he has an auxillary temperature of 103.4 F and is shaking in a severe chill. He has a slight cough and complains of leg pains, nothing else. He took 0.25 gm Nivaquin and 0.25 gm of Aureomycin without trouble, and is now sleeping, with Kene beside him, in my bed.

Kene is usually dishonest, very lazy, and especially unctuous, always whining and begging. However, he is more gentle with the small children than any of the other boys! He plays with small babies more and better than do the others, has them often in his arms and they like him, and is a better playmate and friend to the children of two through six or eight, than any of the others in my line. It is no accident that in the past 48 hours Kene has brought to me three sick children, and two others with sores which we had not spotted. As I type I hear Kesi coughing, and will thus check his chest over once again. If he has signs of bronchopneumonia I shall give him another 0.25 gm of Aureomycin orally and perhaps also aqueous penicillin by injection.

This morning I sent Pentampa off with Agaga to Okapa with a heavy load of mail by foot from Purosa, a heavy package of journals (Neurology, Daedalus, etc.) two stone axe heads, one tomu (stone bark beater), and one broken Kuk-style club (the head broken in half) which Tubinaga found here, and a stack of mail I am returning for file; a heavy box of the two tapes I have recorded, and the next eight 100 foot reels of cine film, and three reels of exposed still film. The mail included a dozen letters to the staff at NIH and colleagues elsewhere, and to Mbagintao, Mother, Joe Morris and others; and finally, letters to Dick Meillear for further supplies from his Okapa store (actually addressed to his Okapa store boy), and to Dick Hornabrook, asking him to walk here Monday or Tuesday. Last night further mail arrived, with long letters from Joe and Paul. I have answered Joe's letter most extensively, for he is still troubled by the problem of Tony's involvement in our Pautuxet work. I realized that this will be a problem for a long while, for Tony has been ambivalent about the slow virus work, not wanting to commit himself to it, and yet not wanting to be out of the show if it happens to pay off. This leaves Joe Gibbs, staking his whole professional career in this one field now, very uneasy. The argument is about the recent U.S. Department of Agriculture Scrapie meetings, wherein Tony submitted a joint paper, to which I objected,

not having seen proofs or drafts, and Tony then withdrew, in a huff, submitting his own paper with all of the data Joe and I had assembled. This set Gibbs off in a really frantic state, understandably, and I have worried just how to settle this matter. I now see that Tony has been peripheral enough to the human inoculation work with ALS and kuru, without doing any work or taking any responsibility, so that even reports of this will create a problem, and I have tried to establish a policy of including Tony in the scrapie work through the end of 1964 (and the current note we are preparing), giving him acknowledged credit for the assistance at times in the human work on kuru and ALS. However, to give him any more credit would be very unfair to Joe Gibbs, and also raise the problem of Paul Brown, Dick Sorenson, Mint Basnight, a group from the animal primate house at NIH, Kurland, others in Guam including Elizan, Marion and a dozen other collaborators to say nothing of the staff we have with Joe at Pautuxet and the whole contract group in Virginia. Thus, I will have to clearly lay down the law of who is a responsible investigator, and who is not, in various projects, using Smadel's dictum of authorship: only those involved enough in the work to take part in the writing of the manuscript and who might have written it themselves with nothing but the data books, with the occasional exceptions of those who have born a huge burden of technical assistance in the work.

With the mail that came in last night from Purosa was a note from Dick Hornabrook stating that he was ready to come and join me, and from Dick Johnson, the American virologist working with Fenner in Canberra, who has been visiting Okapa and making a tour of the Trust Territory. He leaves Monday and has just been to Purosa by car to see kuru cases with Dick Hornabrook.

I have also written asking Hornabrook to beg Dick Johnson to stay on a few days and come and visit me here at Agakamatasa. If possible, I shall take Hornabrook across to Moraei with me. I hope to stay a week or two in Moraei and then cross to Wonenara via Simbari, Aurugosa, Wantekia, Wenabi, and then to visit Imani, Barua, the Genatei (Azana)-speaking villages, and then to trek via Barua to Marawaka, and then to visit Amdei and Usirampia, back to Menyamyia via Hakwangi and Ygwalingwe and Nalambde. This is the patrol I came back to New Guinea for, this is the study route I have been most interested in since leaving the U.S., and now it is too late to do it as liesurely as it should be done! Dick Masland has telegraphed urging me back by March 15th when my travel orders expire, and threatening that it may be impossible to do anything but to put me on leave without pay if I am not back. Having not taken official vacation for about two years, and having lost most of it, I am a bit chagrined. I cannot cut short this patrol and I shall do what I came to do, thus, whatever the consequences, I am staying until I finish, cutting out the other projects I had wanted to rush to after the Kukukuku sojourn -- which is bad enough. However, the backlog of work at NIH is huge, admittedly, and I shall tackle it briefly and try to dent it heavily. Until we get Dick's and my Pediatrics supplement out, two notes or letters on scrapie, and on kuru and ALS into Nature or Lancet, and the measles paper out, I shall not feel satisfied. With these done, I can concentrate on the dozen other papers I hope to write, but these need not be finished before I launch into the field again. Simmons and Curtain and their work must be straightened out quickly, and that is the major immediate issue on my hands, much of which I may be able to do from here while on patrol.



Paul and Joe are holding the fort very, very well, and Dick should be able to get things into order very quickly -- I trust he is back! I doubt that Dick will get the project much advanced or completed before I return. To just get the vast backlog of field results filed and processed and the commitments to others straightened out will be a major task which will require all of his time until I return.

After the mail went off this morning, I turned to the letters to Princeton, to Massachusetts Institute of Technology and to Swarthmore which I must write for Joe Morris in recommendations for him. I drafted a letter and got one off to MIT and to Princeton and will now finish one to Swarthmore. This obligation, late as it is, I do with pleasure, yet with some misgivings. I have praised him highly, and deservedly, for I think he will do a good job in college, even one of the hard, competitive ones and one of the best. However, he is not up to Roger Traub's record, and such reading and accomplishment as many like Roger present, and thus he will be very lucky if he gets into any of the three he has applied to. He is afraid for financial matters, and I have tried to assure him that these he can safely forget, if he can only get admitted. Joe and I can manage to loan him something if Tony cannot swing it, and he certainly can find student loans if he can get admitted to one of these "bests". However, he has the usual adolescent's fear of burdening the family and dislike at remaining financially bound to the family. This is the reason for so much wasted time, which would better be spent simply taking all from home and studying -- and it would lead later to more independence from home than any other course.

My letter to Roger was woefully overdue, but I have finally written what was on my mind. Neither to Joe nor Roger, however, have I had the chance to write carefully, for the atmosphere of village life hardly permits it. While writing these pages, I have stopped writing a dozen times with some two dozen visitors in and out. Wanevi arrived with three months old Andru (Andrew -- losing thereby all the exotic flavour Andru had for me when he first told me the name!) sick with severe cough and fever. I have given him 500,000 units penicillin i-m and 600,000 procaine penicillin i-m, and at the same time we have given the same dose of aqueous and 900,000 units of procaine penicillin to Kesi, who has started to cough badly. Kesi has also taken his second Aureomycin capsule and held it down. Various people argue that he was already sick yesterday, but the day before he was not. I do not recall seeing him about the house yesterday. His mother, Esita, has died of kuru; his father is dead, and Yobiga and his new Wanta wife, Aiyaka, are his guardians. Very few of the boys over five or six still have living mothers!

Neiko has returned to Moraei without stopping by to carry any cargo there! His tropical ulcers are healed or near-healed. Karame is also better, with no further trouble with his sores. I have done better by them than by myself, for I have an ugly tropical ulcer on my left calf, and several still not healed on my ankles from old leech bites on our Gimi-Lobogai patrol!

Mugaiamuti visitors--a total of about ten men, women and children--have spent two days down at Kawarupinti, killing first two pigs that belonged to them but had been raised here by the Kawarupinti people (namely Abusa and his family), and later two other pigs that belonged to Agakamatasa people directly (Saei and Abusa). The pig killing resulted in most of the pig meat being given to the Mugaiamuti visitors who packed it all into thick, long bamboo

tubes and this morning, the day after the mumu, have left for home carrying their "booty". This will result in the Kwarupinti people eventually collecting their share in another pig killing mumu at Mugaiauti, where they also have left pigs to be cared for.

This morning, after getting the letters of recommendation off, to overtake Okapa-bound Pantampa and Agaga with several visitors from Mugaiausi who were leaving to return home after spending two days here at Kwarupinti, I set off with half dozen of the boys for Awarosa, where I had been told a girl was to have her marriage dress fastened (Pidgin: "fasim purpur blong meri"). I had been told that this ceremony was pending, but reports were varied, and I foolishly accepted Tiu's assurance that he "knew" it was this noontime. Admittedly, I was dubious, but we tracked over Katitikabisi where I marked out the site for construction of a house. We shall build it on the property of the Agakamatasa people without acquiring any land-lease and thus without any government interference or decisions necessary, for as long as Mert remains kiap I can expect nothing but obstruction--unless I devote considerable effort toward gaining his support, which is, admittedly, trying and tiring.

The walk to Awarosa was extremely easy and pleasant, and we arrived to a warm reception. However, the wedding is scheduled for tomorrow, not today. The Awarosa people have really rebuilt! The old traditional houses that remained are gone, but for one part-traditional house still remaining at the end of the line of seven rectangular "first vintage" houses of the new era; these now comprise all that is left of the previous upper hamlet of Orinondamuti. These all still stand, but directly in front of them, lining the large "plaza" in which Mr. James's World Mission church stands, is a 270° arc of 21 houses, 20 of them new. The fireless dwelling houses are all completed, only a few haus kuks in front of them are finished, others are under construction; and a few new latrines have been built. A family complex consists of a living house (3 x 4 meters), a haus kuk (about 2 x 3 meters) only about 2 meters in front of the door of the dwelling and with entrance facing that of the dwelling, and, finally, a latrine some meters behind the dwelling. Obi and Nigieguta, two of the Awarosa boys who are living at Wagarori and attending Levit's "junior school", came with us. They are about 12 and 10 years old, respectively. Injuriwambio, over his febrile illness which gave him a high fever yesterday and lasted but one day, Wanevi, Anua, Undopmaina, and the three other Ketabi Purosa boys staying with Anua and Togaba, all came with us. As usual, there was a Mobutasa visitor at Awarosa, M , a boy of about 13 or 14, who because of his traditional dress with girigiri head bands, many rows of tambu forehead bands, and a large kumokumo hanging from his neck, and his fine bow and arrow, attracted my camera lens inordinately. He would have been nothing out of the ordinary a few years ago, but now, a well-dressed Awa with long braided hair, armed with good weapons, with thick bark knotted belt (masculine penis symbol) over his bark pubic covering stood out spectacularly in a Fore population which has abandoned all this in only the past five years. Every single adolescent and older boy and young man was so dressed when we arrived here in 1957! This prompts a Pidgin-Fore-Moraei Kuk linguistic summary:

| <u>kumokumo</u> | <u>girigiri</u> | <u>tambu</u> | <u>kina</u> | <u>severiato</u> | <u>Pidgin</u> |
|-----------------|-----------------|--------------|-------------|------------------|---------------|
| pi'e            | mbi'e           | pobai'a      | agai        | severe           | Purosa Fore   |
| neremanta       | karikori'e      | pobai'a      | agai        | severe           | Miarasa Fore  |
|                 | nungwi          | siramana     | kwal'iga    |                  | Moraei Kuk    |

We stayed only about three hours at Awarosa, while I took some 300 feet of cinema and a roll of still films about the new hamlet. I did not roam from the hamlet, however. Then we returned, again making the trip with ease and without interruption, except at Kititikabisi. It is, undoubtedly, the best home site of the region! However, it lacks the direct views of a "shelf over the Lamari" of my present dramatic location in Waieti hamlet, and thus I have no complaints. If, eventually, I have a small house at both locations, it will make work at Awarosa and here most convenient, and save a good deal of walking.

Back at Wagarori we had a long talk with Levit about complaints from various youths and elders of the village that I had not paid them enough for their work on the house. Actually, I have paid less than I intended to, but further payment is very complicated, for to pay those who complain more--namely those who did not do the really extensive work of the construction itself but only cut and carried materials--I am faced with causing dissatisfaction and anger in those who did the really extensive work and have been paid to their complete satisfaction. Those who complain look for equal payment to that which the major workers receive, and the builders do not want this. Yet those who complain expect vast rewards from my mere presence here. Levit, Wanevi and I discussed it, and after planning to increase everyone's payment, I finally abandoned the scheme, for there is a good deal of "cargo-cult-like-expectation" in vast rewards for simply having a European among them, with little understanding of the Western system of reward corresponding to effort expended, work and services rendered, or materials supplied. Kinship ties and membership in the group is sufficient reason, most natives believe, to be rewarded as well as any of the workers. This is a system so at odds with the Western and civilized world's economic system, which is and has already largely replaced the traditional system throughout the Fore and the rest of the Highlands, that I would be unwise to return to the old, even for the satisfaction of a group in the village. I must try to spread rewards about a bit more profusely, for I have not given as much payment to the villagers as I want to, but I am more aware than ever of the complexity of this rewarding.

Wanevi, for example, has fallen heir to far more criticism than I--and very unjustly--for his villagers accuse him of "grisim masta" (being unctuous for personal gain) and of "fasim masta" (withholding my payments from them) for his own gain. This is a very typical and traditional native pattern of suspicion, rivalry and accusation. It was the cause of most squabbles settled with arrows and axes in the past. Recently the episode wherein Wanevi shot with an arrow and killed Yobiga's pig, which he found ruining his coffee garden and was then attacked by Yobiga's kinsmen, Dora and Wikabara, where Yobiga himself seemed to admit the guilt of his pig and himself to settle the matter, is a typical episode from the past. Thus, they struck him on the head with an axe--not intended to be a fatal wound, but in the past not infrequently a fatal type of assault. Levit immediately dispatched Wanevi to Okapa to see the kiap and "wokim kot" (bring charges in court), and wrote a letter explaining the affair. Dick found Wanevi with carefully unwashed blood over his head at Wanitabi and brought him to Okapa. Wanevi now tells the story with laughter, refers to his two prisoners as "tupella kalabus blong mi" with glee, and the exquisitely evocative Pidgin expression, "em i filim nau" creeps into his tale of justice and court-sponsored revenge. Levit now tells me of the crowd of Agakamatasa elders and youths all fell upon him after

Wanevi had departed, very angry that he had written a note to the kiap and sent Wanevi off, for they insisted that this should have settled locally without government intervention and without the danger of "kalabus". All is probably very well, and I am tempted to side with many an anthropologist and the more traditional villagers--however, it is hiding from the facts to fail to realize how much real murder, serious injury and chronic disability and how much human rancour and fear and frustration the old system entailed, and how often it all ended in women and children being killed in revenge for felt injustices. To fail to recognize the fears and frustrations and the toll in life of both the offended and the innocent family members is to fail to know what the traditional culture was like! This is so easy to do when one is not here at the time of warfare, murder, tukabu, and hostility--and government has certainly brought all this quickly to a minimum!

February 23, 1964....Waieti Hamlet, Agakamatasa

Exhausted, and near sunset we have returned to Waieti from a full day--very full!--at Orondamuti. The boys with me--Kukumba, Tiu, Tsokam, Uwara, Ata, Abekaia, and several others--decorated themselves with garlands and "tanket", and flowers and colored leaves and fern fronds in the bush above Orondamuti and the entire long climb to Katitikabisi and down to Wagarori, and then to here was a loud, enthusiastic singsing and the chants and dance steps in the floral decorations provided a most remarkable procession. At Wagarori Levit gave us a dish filled with fresh potatoes, fresh tomatoes, beans and other vegetables, and from Orondamuti we left carrying a freshly mumu-steamed leg of pig and loads of cooked yam and a huge purple yam, kaweino, given to me. Kukumba seized the dish and carrying it aloft, the singing procession danced into Waieti with the food-bearer in advance, springing over the fences and scampering along, all the small children of Agakamatasa shrieking with glee as they saw the procession and following it, grabbing decorative leaves and sprays along the path for themselves. Where in the world would one reared in the academic shrines of the Western world expect to see such pleasant frivolity? It belongs in the Classics, in accounts of Saturnalias and of Greek feasts! What on earth has possessed us to make life so complex that this has gone from it?

Those who stayed behind have cleaned up the house and grounds beautifully--Undopmaina, Wanevi, Waiajeke and Andembitsuo.

The "marriage"--more correctly, the "fastening of the skirts of a married woman", from the Pidgin "fassim purpur", or the Fore iva wanai(today a woman!)--at Awarosa took place and we stayed for the entire show, and had adequate light for photography throughout the proceedings, so I have shot an extravagant 1200 feet of cinema and 8 rolls of stills!!! Much of the day was overcast, and the scenes were themselves dull so my early shooting with cinema was at f 4.0 and 2.8 and thereafter I dropped to 2.8 and 2.0 and finally to 2.0 and 1.4 with the Bollex, using always Commercial Ektachrome film. I have been worried about the lens I used for almost all of this cinema--for I am unable to get a really clear view through it. I thought for a while it might be trouble with the through-the-lens viewing optics, rather than the lens, but since the telephoto lens ( mm) gives a sharper and more brilliant view, I can only blame this lens. I do not recall such a dull and difficult to focus image in the past, and thus I have not overexposed because of the dull

image. I hope that the photographic optics are intact and the image clear in the films.

This was a very unusual opportunity, for the whole proceedings were carried out with great finesse, and with fine organization and I had a very good cooperation in wandering about filming, for this is the third ceremonial mumu I have filmed here at Awarosa over the years. They are used to me and the cameras, and I am familiar with their "program". This is the first full donning of adult woman's skirts which I have recorded in cinema, and I hope it is well done.

The bride, Arompa (Fore for "semen", if I recall correctly), was most fortunately and opportunely the only light skinned "red skin" in the large assemblage, so she should stand out from a distance in group shots, and be most easily seen.

---later:

Interrupted by the arrival after sunset of Agurio with Pabi and Wanjipta from Morandugai, Wanjipta in a small boy's skirt and nothing behind, both he and Pabi with bark cloaks, but Pabi and Agurio, otherwise dressed "modern", in laplap. Agurio is in full laplap, shirt, trousers and one of the army caps we sent him. I have immediately reinspected the Nagra III which has had me a bit ill with its "failure", and, as I suspected, the failure was me not it: the main switch has two indicators--one for batteries and another for exterior power source, and somehow the exterior power side of the switch has come into use while we are using only batteries--thus, no go! To find that I could record again has overjoyed me. I tested the previous faltering recording of messages for Mbagintao from Neiko and Karame and found it, to my surprise, alright. We have then recorded a good message from Agurio and finally, after some hesitation, also one from Pabi. These messages give us the first good samplings of the Moraei-Muniri-Simbari-Bulakia-Iambananye-Iatweia language, or the south-westernmost Kukukuku language, which I tend to call by the name of the major-group: Simbari. Undopmaina's Amdei is certainly a different language with a modicum of mutual intelligibility, which seems less than Dutch-German. Thus, he does not follow what is said without repetition and circumlocution and cannot communicate without the same repetitive rephrasing and multiple attempts. The Amdei-Usirampia-Marawaka-Barua language is thus closely related but not identical by any means. The Aurugosa-Wantikia-Wenabi (perhaps also Dumbulia should be used in the name) language is related closely to both, but again, I believe, not identical. The same is true for the Imani language which is closer to Barua-Marawaka-Amdei-Usirampia than to the others, I presume, but yet distinct. This gives four Kuk languages in the Wonenara region, all closely related, for sure. Genatei or Azana is totally distinct, not belonging, I believe, to the Kukukuku group at all.

Now, with this digression, with Agurios surprise visit, and with supper, a new recording session, and an exchange of many tales behind me, I can return shortly to my account of the Awarosa "wedding feast". First, it should be mentioned that Kesi is well this evening, afebrile and feeling fine. Pabi and Wanjipta have arrived with large tropical ulcers which we have treated and I have given Karame, at the same time, a further penicillin injection for his only slowly healing ulcers.

The ceremony at Awarosa was already in early progress when we arrived. Along the trail down from Katitikabisi many of the Awarosa men and youths were hunting for their pigs with bows and arrows, trying to flush them out of the bush to kill them for the ceremonies. I had misgivings that should they fail to catch the pigs, the fastening of the skirts, "purpur", might be delayed another day. However, at Oriondamuti there were three pigs from the bride's side of Awarosa--for Arompa is marrying Yauokabi, also of Awarosa. Arompa belongs to the Ketabi line and Yauokabi to the Wanta line. The bride's father and relatives were well along with their marriage gifts, having already started to peel yams and other vegetables and to butcher three pigs, and these they were preparing to cook in two large mumu pits. I started to take cinema and still photographs immediately, and got the very start of the cleaning of the mumu pit, emptying out of rain water from an old pit by small children, and the full preparation of both mumus, one started a full hour or two before the second. Bamboo knives were, as usual, preferred to steel for the butchery. The current ceremony is called iva wana in Fore. The skirts or "purpur" which form a big part of it are called waso. The mumu was unusual in that it had far more yams in it than sweet potato, and even taro equaled kaukau in quantity. Taro and yams are preferred in this ceremonial mumu, I am told. The vegetables that I saw going in were as follows: yams: araba (yellow), kase (white), kawaino and mapiara (both bluish-purple); bananas (yagi): moruga, abagamba; piga; taro (ina); maiya; beans, aruwara; "as bin" (piga) or root of the native bean; leaves of native bean (piga ana); pitpit (pari): abeia, mukujiyanonto, yonikaba; and greens ("kumu"): igagai, kene, yese, iyo'yo. These were all identified for me while I shot pictures and these all went into the bride's family's two mumus along with the three pigs.

The second mumu was almost finished before the bride came from the women's house where she remained all morning. When I visited there, I found her without any dress other than a very simple grass skirt. Thus, near-naked, she came forth with a simple bark cape, to sit among the women as the first mumu was about ready to be opened. At the onset of the ceremonies, after opening the first mumu and piling up the cooked pig for distribution, the father cut a big slab of pig fat, salted it, and then taking it in his left hand and a large, peeled and mumued sweet potato in his right hand, he knelt before his daughter and gave her first the huge slab of pig fat to bite into and then the kaukau. She took big bites of the pig fat, but then removed them with her hand and put them into a basin. Thus she bit into pieces a slab almost 2 inches thick and some 6x10 inches in area, becoming rather nauseated while doing it, yet persisting with the repeated mouthfulls, until she had so "consumed" it all. The mouthfulls piled up were for her mother and brother, Togaba tells me, and they will eat it later. As this was opened, dozens of bark skirts (waso) were being rubbed with pig fat by her family members. When the mumu was opened, pig grease was collected by both the men and women to rub into the new skirts.

Finally, in late afternoon, the ceremony reached its climax with the bride standing up and being further anointed with pig grease from head to foot--this had gone on slowly as soon as she had arrived--and all her relatives under her father's supervision began to fasten one new skirt on top of another. These soon reached to above her umbilicus, weighing a huge amount, and she could only stand by grasping a stake driven in the ground before her. They kept on piling on skirts however, and pouring liquid grease

from a bamboo cylinder over the new skirts which had already been fastened. Then shell necklaces were added--girigiri, tambu, and many with fine kumokumo shells, and some thick necklaces of glass trade-beads. At this stage she required assistance to keep standing, and only now her relatives began to hand heavy bilums full of pig meat, already cut up into chunks that would pack well into the bilums, upon her back, hanging, as usual from her forehead. A total of five huge bilums were piled upon her, she being already of huge girth with the dozens of skirts. The skirt and necklace fastening had been capped by a really modern addition which caused more awkwardness than all else. After the poor woman was so overloaded with her ornaments and dress out came a new blue printed cloth European dress. Nothing until this time had been out of tradition (trade beads invade in the very earliest stages of "contact")--but this certainly was. They had extreme difficulty getting this over her head and onto the pig-grease smeared bride. She could hardly be seen any longer with all the weight of clothing and bilums of food upon her--perhaps several hundred pounds by this time!--when the heavy stretched and mumued skins of the three pigs were piled upon her head, several relatives supporting her, while her hands still clung to the pole before her for support. This finished, they virtually carried her--she could not possibly walk by herself--several meters away from where all this had taken place, to the place where the grooms family was assembled and here, among them, she collapsed, and was slowly relieved of her burden of gifts.

The grooms relatives had made another huge display of foods, among which sugar cane (an acknowledged male symbol) was very prominent, and they had started a third mumu with two pigs in it, after the bride's two were well underway. These were cooked "whole", spread out after ventral split, rather than carefully butchered as the bride's had been. These gifts from the grooms family went to the wives relatives, into their bilums and divided among them to carry home. Thus, it was a huge mutual "exchange", not very unequal, with the bride's family giving more, in that the skirts and ornaments were not reciprocated by the groom's line.

This was all not completed until very late afternoon, and with dull light and threatening rain, we took off on our trek over the range to Agakamatasa. The many visitors from Purosa who had arrived yesterday, remained behind and the gathering had not yet fully broken up when we departed. I was handed the leg of pig by the bride's father as I was leaving.

A group of ten Awarosa youths have decided to go with me to Moraei and on to Wonenara; four Mugaiaamuti visitors who were here have agreed to go plus their luluai. Thus, there is a nucleus of a group of carriers, but I will not be surprised to find real carrier problems before we get to Moraei--more when I want to leave there. No one is willing to go to Purosa to pick up the six carrier loads waiting for me at Tarubi's Aid Post (kerosene, rice and wheat-meal, he has written).

February 29, 1964....Yamnaubinti, Lamari Shore

Dick Hornabrook and I managed to get the remaining cargo packed and on the trail by 9:00 a.m. and when we started off, I found the heaviest cargo box, and first one ready, without carriers. Thus, I sent Dick on with the cargo, and stayed behind with Tiu and Tarubi and Anua and the three boys

carrying camera gear for me: Pauwa, Ata, and Ai (Ai, at about 12 years of age, the oldest!). After about a half hour we succeeded in getting three carriers for the remaining load, and descended then quickly to Kwarupinti where Abusa, Yorasa, Wate, Saei and Waiaore all had gathered a fine supply of kaukau and sugar cane for us, and had it waiting on the trail. I purchased it, thanked them, and we loaded it into bilums and everyone in the line carried some. Thus, we left Agakamatasa in remarkably good order and very efficiently.

Wanevi saw us off, and as he had decided yesterday, stayed behind. I was glad of this decision. I need him supervising the house, watching the equipment and supplies I have left behind, and I do not really need him on patrol. Secondly, it is important for him to be back with Pigwaseta and his young son, Andrew, and, finally, he can manage to get shelves built and the house improved while we are patrolling. I gave him 2 pounds which he could deposit in the bank at Okapa or Kainantu, to increase his idle account. A large portion of the smaller boys of Agakamatasa are with us, but most will return from Moraei when Dick Hornabrook returns!

At the Kuroma we stopped for about an hour to bathe, and thereafter quickly made the added distance to the Yamnaubinti camp where the Ivaki and Mugaiauti carriers I had sent on ahead yesterday had constructed a house for Dick and myself and from where they had already departed for Morandugai this morning. We thus moved in, and have ever since been lounging on the Lamari sandy and rocky shore. The bridge is okay, but old and will soon need full replacement. The boys are building separate small houses for themselves. Tiu has already caught a large fish, and Dick is collecting insects, especially butterflies, avidly. He has already planned to come back here for a week's sojourn, or so, to collect further insects.

We have already eaten well, and if the good weather holds out, we should have a very pleasant climb to Moraei tomorrow.

Last night the boys of Waieti staged a long singsing, chanting songs mostly learned from the Awa region (Mobutasa) rather than South Fore songs. I tape-recorded a bit of this.

Yesterday was spent reading and writing a bit, but mostly in attention to the large mumu the people of Agakamatasa gave to me for having finished my house and moved in with them. I again explain why it was essential for me to stay for only brief periods; I promised to return, as usual. Before leaving I gave Tubinaga a long, light probably Spanish-speaking made steel bushknife made in some Spanish country without which I conclude from some Spanish words on the blade in very small letters. I purchased these fine bush knives while we were in Lae at Seeto Kui and Sons, Wholesalers, together with a stack of other supplies, which reached me yesterday day with Dick Hornabrook.

Hornabrook will be collecting insects here all day, concentrating on Lepidoptera. Yesterday morning at Waieti I opened a box of marbles and gave one to each child for each handfull of insects he brought in. They brought in stacks of insects and Dick collected many more on a brief trip to Kesiri and Arinoguti.



We had dispatched six Mugaiaimuti and six Ivaki carriers early in the morning with the salt and rice bags, one heavy cargo box, the kerosene tin, and many other supplies along with Paretai, and they had made this camp for us, and gone on to Moraei. All these plans worked out very well.

In the early morning Tubinaga had killed a huge pig for the feast the village was giving for my moving into the new house. Women soon began to arrive from Kesiri and from Kuwarupinti gardens, and everyone in the various hamlets was eventually here. The feast was rather formal, with Tubinaga and others telling me that after the mumu and distribution of the food they had serious discussions for me. Six large chickens were brought, shown to me and the donators named for me by Tiu and Wanevi, and then taro, kaukau, plenty of pitpit, and some pari were included. I asked about paying and everyone was somewhat coy and stated that it was a gift feast to me and that they did not want payment. We took cinema and still photographs of the feast preparation and of the mumu stones heating. The mumu was made down on the site where the last Waieti wa'e had stood, where now only a round scar remains. It was finished in early afternoon, opened, and food distributed while Dick and I looked on. Finally, after a huge share for me was portioned out, they asked to retire to the house, where Dick and I sat in a circle with some 50 men and boys, mostly the elder men, from Agakamatasa with a few Mugaiaimuti and Awarosa visitors. Then, onto banana leaves on the floor, the whole pig, five chickens (the sixth had already been given to my dokta bois), the vegetables of every sort were piled, and then with some embarrassment and pause, Abekaia began to give me a thank-you speech for coming and a speech indicating that they were very pleased to have the house finished and occupied by me. I switched on the Nagra III for these proceedings and got most of the remarks directed to me, Tarubi's translation, and my long discourse to them, intermittently translated by Tarubi, down for permanent record.

They then made their "complaint" for which I was waiting. After many years coming and going I had not yet given "stirongpella wok long pikanini blong mipella". They apparently mean by "stirongpella wok"; work which is nonmanual, such as car driver, carpenter, turnim tok, dokta boi, and manki masta. All these I have not been able to engineer for their youths, already too old and barely literate. The one about young enough, but immensely gifted, Mbagintao, I have taken to America. All the others remained behind without "stirongpella wok". I thus thanked my hosts, and then, in a long discussion, explained how the coastal schools required four standards properly completed in the four village primary schools these days, for candidates to enter, as did the medical aid post orderly course at Goroka, etc. This their youngsters had not attained. Only Uave was going to the Seventh Day Adventist school from here, and some three or four boys from Mugaiaimuti. I also explained how important Levit's teaching literacy to older boys had been. Tarubi translated my Pidgin replay into Fore quickly, for I could not have got what I wanted to say across in Fore, and all this was recorded.

After everyone formally departed Tiu and Tarubi cut up the pig meat and divided it among everyone, i.e. all the non-local boys in my "line", including my own local boys who remain about the house all the time. Dick and I had chicken and pig from the mumu for supper along with a package of soup and a bottle of good wine. We discussed kuru problems, personalities, and future research at length.

The problem of this feast had been on everyone's mind for the whole of the last week, quietly mentioned to me, but plans never finalized, the people uncertain as to whether I wanted it, expected it, or would stay for it, if it were held. I finally realized that the local people wanted such a celebration, and suggested that they have it when Dr. Hornabrook arrived. When I asked whether I could pay them for the pig and all they had brought, they said "no", but I have started to "pay-back" with a Spanish bush knife to Tubinaga.

Ivaki, Mugaiauti, Awarosa, and Agakamatasa have furnished all my line now with a few not-really-welcome Ketabi Purosa people as well. The dislike of the Ketabi-Purosa group by the local Agakamatasa has been a matter of concern all these last two weeks. We also have a couple of carriers from Kamira. Just how many I will want for the trip across to Wonenara, I do not yet know. Certainly I want to send some of them back with Dick, in a few days, and reduce the number of my carriers considerably at Moraei. Togaba and Obariso are still with us, Kene and Waiso and Paku are off as the result of my admonition that beyond Moraei I could not take "everyone". Ai and Bube are with us, carrying suitable loads, and the group of permanent boys is still restricted to Tiu, Anua, Agurio, Waiajeke (replacing Wanevi who is remaining at Waieti), Injuriwambio, Koiye and now Ata and Pauwa, and with these eight I have more than enough. Probably Ai and Bube are will come on with us, and perhaps some of the over a dozen Awarosa and Agakamatasa boys now with us. I cannot take too many, and want the carriers restricted to no more than twenty.

The beauty and comfort of our camp and the pleasant climb here in the tropical forest beside the Lamari is undimmed from that I found here on my previous sojourns.

--- dozed off while writing here beside the Lamari, to the loud roar of the stream which lulls one easily to sleep. I had dozed off several times during the typing of the above page and then actually have fallen asleep while writing.

March 1, 1964....Teiwan Hamlet, above Morandugai

My house here is intact, waterproof, dry, and in good condition, but it probably does not have more than a year more of good life--two at the most. The people have cleared the garden hilltop above the house, the site where I had hoped to build next, and built there a haus kiap wherein Dick and I have put most of our cargo and bed sleeves for sleeping, but I work and we eat here in my small hut.

I have hunted for a better site for the rebuilding of the house and about the Morandugai-Teiwan area there is none, other than the haus kiap site itself, which has the disadvantage of being set further back and thus failing to look down upon the Lamari valley. Agurio's old house is in the best situation, for it gives the same wide view that the slightly higher haus kiap gives, but also a much deeper view into the canyon and down to the rain forests. It is, thus, the best site I can find and I have suggested that when my current house is replaced they build my new house there.

Morandugai and Teiwan have rebuilt as have almost all Fore villages, in the past eight months, and new houses in a line fill both lower (Morandugai) and upper, Kataramapinti portions of Moraei. The old houses still stand, for they are not yet 2 years old! But a full set of new houses, still largely unoccupied, replace them. The church stands, but what is most interesting and remarkable, is a fully new Morandugai "haus lain" just below the major modern "haus lain", and this built in fully traditional style, with five classical, totally traditional ambel angas, and one of the kwal anga (built by Nagumbora) and even with high stocade-like fences around one of the ambel angas. The kwal anga has no fire in it and is obviously new, and for a while, deserted. The other houses look rather old although none were here on my last visit. They have smoked dry, and obtained a brown, well-smoked appearance in less than a year! I would have judged the hamlet as several years old, rather than brand new! The men who have houses in it, are: Waganduma, Mundarai, Karamu'o and Mbenai'o, and Kaisinumo (now deserted). That in which Karamu'o and Mbenai'o live with their new wives was Mindini's new house and he has given it to them.

Everyone I know in Morandugai appears to be here. Pomunji, Tchowe, and Wele (or Uwele)--all early-adolescent-age-mates of my last visit, but then all with still the boyish very early adolescent appearance--all now have pubic hair, facial hair, extremely rapid pubertal growth spurts behind them, and all look in late rather than mid-teens. They have aged three to five years in appearance rather than one. Almost every one of the "boys and youths" of our last five to seven years of sojourn here are now more men, than boys. Yarego is here, looking a husky 12-14, perhaps nearer 14 than 12! He is not in a kanila nor in a laplap, but in a bark skirt more like the women. The boys and men often simply say that he is a woman, although they all know he is male and always have. He wears a tattered bark cape in addition to his bark skirts. I persuade him to let me examine him privately in the house. He is a true male pseudohermaphrodite. He has real testes about 3.5x1.5x1.5 cm in size bilaterally in scrotal sacs which appear more to be labia. He has a prepuce or clitoral-foreskin covering over the urethral orifice, but no penis at all, and no corpora are felt in the perineum or about the urethral orifice. He has a normal anus. There is early 2+ pubic hair, with testicle size at what I usually call 2 or even 3 (on 4-point pubertal maturation scale). He is more mature, somewhat corpulent, and no longer the boy. This group of Muniri males with congenital absence of the penis is fascinating and bears further study! I would like to get good pictures, but wonder if it will be possible. The flash picture I took of him two years ago I do not recall seeing back at NIH, although I think Dick told me that they did come through! On second thought, I think I have seen them. We must look them up!

A second male of about 15 or 16 years, Sukulugo, is living at Kworiangai in Muniri and is said to have the very same defect. I must try to look him up! I have been on his track now for two years! His father is given to me as Tseiwan, of Aitweian, Muniri and Yarego's father is Andamunda of Meikwangari and Aitweian, Muniri. I presume there will be close genetic relationship.

We were brought ample sweet potatoe for two days for our carrier line, yesterday, and this is most fortunate. I have put over half away for today, so today again we shall have no problem. But tomorrow? However, Dick returns back to Okapa tomorrow, and he will take a large part of my immense number of carriers and hangers on. I have some dozen boys and dokta-bois and a line of

52 carriers (including over a dozen small youngsters). Half this number must leave, and it will not be a very easy matter to get rid of them, nor will they be happy about leaving. They all want to make the trip, and all want to see the distant Kukukuku country. I could neither pay nor feed this number, and what is worst, they would be very, very much in the way in the Kukukuku settlements.

Only one male in all Moraei is wearing belt bones and this is Iwo'o. All others have given them up, and there are not a half-dozen with kanilas. Aiwanji and Neiko still wear kanilas, all others are in laplaps. Even those in kanilas do not have muniri or mula, and thus the orchid fiber breast and belly bands have almost disappeared. Neiko wears a thick chain of old ragged mula, but no muniri. Bows and arrows are all poor, shields are few and uninteresting, and, in general, the traditional has almost all gone, were it not for the new hamlet of traditional houses, I would have very little to show Dick or "old Moraei". Today Agurio, and many of the others dressed up in traditional finery for photographs. There were few bird plumes, none good, and no good kanilas nor orchid fiber breast or belly bands, and they could not even find bones for the waist and used cloth towels instead. Agurio had to hunt about and borrow kanilas. Women, however, remain almost traditional. Fingers seem to have disappeared from their neck pendants, but chicken feet, penicillin bottles, cuscus tails, beads and shells remain. None are yet dressed in cloth.

Kambinduwe'wo (Wambi'o or Nerembi) with the total hare-lip is still here, now looking about five years old. I have taken moving pictures of her again.

When Agurio and the others dressed up, Anua, Togaba, and luluai Abekaia of my line of carriers and helpers put on kanilas and Kuk style dress for pictures as well, the third time my boys have found it a good jest to do so.

We have distributed Nivaquin yesterday with food, and today I must finally pick my cargo carriers for the trip. There may be many a walk-out, new arrival, or change of mind between now and the time I leave, but I am prepared to expand or contract my supply cargo as the available carriers make it necessary to do so. I am not prepared to leave with a li e of over 50!

Adjetmaga and Yoyo'e have both given me fine stone axe heads which I have turned over to Dick Hornabrook who is avidly seeking curios. I did so with hesitation, but then I decided not to be stingy, for I have in the past accumulated so very many of all these things.

Dick has made the trip well, but the trip here from Yamnaubinti was too much for him. He collapsed on the trail a number of times, totally exhausted, arrived to sleep and rest for most of the afternoon, and admitted that it was simply a bit too much. However, with all this, he made it only about an hour behind me and is in good shape now. Thus, it has not really been too much, and it has been good to have him here.

March 2, 1964...Teiwan Hamlet, Moraei

Dick Hornabrook left this morning, carrying a package of the blood specimens I collected yesterday and another package with tapes, cine and still

films as well as letters to the NIH, and, finally, letters to Carl Eklund, Tante Irene in Kabul, and to Roy Simmons. He also took back to Okapa for me a stack of papers, instruments (reflex hammers, ophthalmoscope, sphygmomanometer, etc.) and other equipment I do not want to carry with me on this patrol. He hopes to go right through to Agakamatasa today and tomorrow to Purosa. He has with him two cuscuses which he purchased here for 8 shillings each: a fully black one called mboruga and also wanuma after the Fore for the same species which is wanume in Fore, and a gray species with a black dorsal stripe called injabuta here, and iga by the Fore.

He had collected a shield in its bilum, several arrows, the axe heads I gave him, and a very large collection of insects. His entomological collecting has been immensely successful, especially for Lepidoptera at Yamnaubinti and for Coleoptera here.

Yesterday he started for Mbotnari, but half way there found his knee paining, and did not go on. However, he has seen the new traditional style hamlet at Teiwan and has collected extensively in the gardens about this village. He is feeling well and it is very likely that he will make the whole trip to Waieti successfully by mid-afternoon. I sent only his one cargo box back containing a good many of my supplies, as listed above, in it.

Last night in the upper village of Teiwan in the kwal anga of modern plaited bamboo, rectangular construction most of the youths and several of the senior men of Moraei were crowded singing songs through the whole first half of the night. I finished the tape half finished at Waieti and then completed a second tape, recording song after song with Paretai and Agurio telling about who had composed it, the occasion and the story. It is a good record. The last tape, finished after packing the package for the NIH, will be kept at Okapa until I return and ship it off.

Some dozen carriers returned with Dick, thus dropping my component to under 30 strong carriers and a dozen or so youngsters--a more manageable group that the expanded group we had about with us here. Tarubi, who wanted to go with us badly returned with Dick, for Dick brought word that Mert, Geretts, and he did not think he should leave Purosa. I would like to have given Tarubi a chance to see all this country he so much wanted to see.

One of the songs sung was to Ameiaosin (Ameiaosinumo), the like-named ancestor to Mbaginta'o (his original name! was Ameiaosin, not Mbagintao). Another was by Adjetmaga coming back from making fences in his garden and arising to sing of a "driman" that he experienced. All were composed by Moraei people who were present but for a few they immediately attributed to their ancestors.

Moraei, as usual, had many wild animals in captivity. Beside the two cuscuses which Dick has purchased, there are two birds in captivity here, one a vulture-like bird with brilliant red bands on his black wings. The Moraei call this bird alale and the Fore call it kabare. Another hornbilled bird they call metchagl here and ane in Fore. Both have been purchased by my boys or carriers, although Dick wanted them and had been told he could have them for a few shillings. Tarubi and Ana claim that they have been purchased for over one pound instead of a few shillings Dick offered.

I developed a pussy, infected left eye the night before last, and a painful, red, eyelid. The swollen, tearing and pus extruding eye troubled me all yesterday and now, today, it is only slowly subsiding on Neotracin Ophthalmic ointment and high doses of oral penicillin. I had a bit of coryza with it and some right eye lachrymation and purulent exudate has appeared today. Thus, although it acts like a bacterial infection, it might be viral. It was of acutely sudden onset.

Today many of our Kuk hosts and the cargo carriers are drawing pictures at the haus kiap site, and I am working down here at my much more snug and warm house. It has been very windy and actually very cold much of the two mornings I have been here.

Since I have distributed the box of marbles at Agakamatasa, marble playing has been such a craze that I can hardly get the boys off it to give me a hand at anything. It is remarkable to see how completely Western their marble playing is, and how like European children they take to it.

With the first blood specimens, the first cinema and still films and tape recordings from this year's Moraei sojourn already off, I am very pleased. Now to settled down to some rather serious study and work here, but first I need some rest. The night singsing took me until after midnight. Furthermore, I was ill all day, and now, in midmorning, with Dick and the few carriers who have left with him off, I am very tired.

The three dozen odd carriers and boys now with me will require a good supply of kaukau and other food, and we shall have to get after the Moraei people to supply it today. I hope, with success.

I shall turn later to making sketch charts of the village and taking a quick summary of dwelling and sleeping arrangements. Garden ownership throughout Moraei would be valuable to know, but it is a vast task to determine it all.

late in the afternoon:

Kunai fire is burning at Umakisi below Kwarupinti to signal to us that Dick has passed. I have slept most of the time! My eyes are better, I am still on oral penicillin and Neotracin Ophthalmic Ointment, and I feel better. We have just bought another huge pile of kaukau for our carriers. The pile is reaching an immense size, but since it may well be the third day from now before the people will bring food again we have certainly a need to store

March 2, 1964...Teiwan Hamlet, Moraei

The night before last Mindini had a serious discussion with me about his resentment of being under the Wonenara kiap. He did not want to have his line censused by Wonenara and wanted the Okapa kiap to census his group, with them going to Agakamatasa, if necessary, for census. He also thinks the natives between here and Wonenara unfriendly, backward, and primitive, and would rather be identified with the Fore Agakamatasa line. With many of the children using Fore names for things and pausing a while before they can think of the real Kukukuku word, and with almost all adolescent and adult males bilingual in Fore, and building style, mission influence, trade ties and all matters of their culture now markedly Fore-inized and with many new marriages

of their women to the Fore, I predict that Moraei will eventually be a "Fore" village, as I could see slowly approaching two years ago! Furthermore, Moraei was a totally Kukukuku, Fore-unrelated village when we first visited these hamlets. I have told Mindini that I will bring his message to the kiaps and that Wonenara as a station may be replaced by one in the Marawaka with a bigger and better airstrip. I have suggested at Port Moresby and at Taipini to MacCarthy that Menyamyia administer the entire Kukukuku, removing Wonenara from the Kainantu Sub-District and also removing all people from the Lamari-Vailala Divide (i.e. the Awa) to Obura Patrol Post leaving only Genatei and Kuks for Wonenara-Marawaka administration. Finally, the whole Eastern Highlands Kukukuku region would be best transferred to the Morobe District, and in this transfer, Moraei-Muniri might perhaps be given to Okapa as they desire. Thus, with all New Guinea Kuks administered in the Morobe District, one would amputate this portion from the Eastern Highlands. Dick and I discussed the making of Okapa a District Office. For Kuku purposes, it would be better to make Kainantu a District, with Okapa, Lufa and Henganofi under it. This would embrace ALL Kuru, all contacts and endangered populations, give Mert Brightwell an adequate chance for career expansion, and leave him with Kuru and Okapa, however. From the point of view of the further development of the Fore, Kainantu as the District Office would be preferable, I believe.

Enough politics.

It has been almost impossible to get any work done these days since leaving Agakamatasa, except photography and tape recording. There have been too many people around, the house is always full of visitors, and to exclude them would be an affront. I shall try to get some quiet privacy this evening, but I doubt my chances of success.

I shall finish E.M. Forsters "Collected Short Stories" this evening and then see if enough people have moved-off to let me turn to papers and spread them out for work.

March 3, 1964....Teiwan Hamlet, Morandugai

I spent a couple of hours this morning roaming through the lower new hamlet and the old hamlet of Morandugai, taking pictures. I made still black and white portraits of several dozen adults and children for an identification file, and also for series of pictures of children showing the strange delayed maturation, by comparing them with portraits made in previous years--and, hopefully, in years to come. I also took 300 feet of cinema showing these individuals, babies, and children, and the general layout of the hamlets. I was mistaken yesterday: with the new lower hamlet of Morandugai extending northward, it has so far extended that the last of the new houses almost meets the ground of the old pair of kwal angas of traditional style in Morandugai. This site is now occupied by the new kwal anga of Mei'a'm'bn, and below it, what I took for a new site of traditional houses is NOT one. It is really the old houses seen from a new perspective and with only one really new one in the collection: that now shared by Mbanai'igi and Karame. Thus, I was totally mistaken on my first day here assuming this to be a new hamlet only for the unfamiliarity it presented from the different approach and the new outlook with the kunai and bush cleared and the new kwal anga slightly differently

situated, fences changed, etc. I have now made a complete map of all existing old and new houses in Teiwan-Morandugai complex from Mindini's still occupied old house far below all others to the haus kiap and the new houses of upper hamlet. On this map I have assigned all houses to their owners, which in itself permits almost complete sleeping arrangement assignment, but I shall try tomorrow to complete the task.

Today two mid-adolescent youths and one man and three small boys from Muniri have arrived, all in kanilas or the longer grass skirts of younger boys, and all with bark capes, and one with both muniri and mula. There is no laplap in the crowd!

mid-afternoon:

I have taken the Simbari trail above Morandugai far up the range, passing the last deserted garden site. There are many, many sites high up the trail for houses, many on very level outlooks, however, none has the view deep down into the valley or as far up and down stream as the protruding plateau of the upper hamlet of Teiwan-Morandugai. I read most of the articles on the January 1964 issue of Harpers, finding it a disagreeably mediocre magazine in content, but without others on hand, I read it.

Waionevi has already returned, and Tsokam and Wate have also come. Levit has written that the doctors at Okapa do not want him to leave his Aid Post and Tarubi is similarly restrained from joining me. I had been prepared and willing to have them along, and I enjoy their company and profit from their expert assistance. However, we shall travel lighter as a result, for although they do more than their share of work, I usually end up with several boys carrying the dokta bois' kit bags, and a total of twice the number of dokta boi assistants in non-cargo-carrying mouths to feed and people to crowd in upon small Kukukuku settlements. Thus, I really miss Levit and Tarubi and am very markedly restricted in talented support without them--yet we shall do well with the smaller group and there will be better training for Paretai and Undopmaina as a result.

It has been a lazy day since my morning photographic tour. I may do more work before it is done, but now I am still a bit tired out after the eye infection and I use that as an excuse for reading away the hours.

The three hours of intensive work this morning was all I accomplished, for the rest of the day has been slowly lolled away. The old problem of carriers and visitors too numerous and too clinging is upon me. If I send them off, I shall not get them back easily, and this may well curtail our whole trip eastward. If I keep them, I have them on my neck!

March 5, 1964....Teiwan, Morandugai

Yesterday evening I recorded Wanjenumu telling a long origin myth of the Moraei people, which I had difficulty recording because of all the crowd of people crowded into the house and absolutely refusing to keep quiet. Finally, we did get the story from Wanjenumu, but then translation proved to be virtually impossible. I could not get a reliable version from Paretai, who is a poor translator, and quite lacking in fluency in Pidgin. Agurio did better,



but he was so unable to speak, because of lip injury from kick ball today, that I could not get the full version from him. I would have been better to rely upon Injuriwambio, Adjetmaga, and Yoyo'e and Nagai, than these older Pidgin-speakers. Actually, there is not a single really fluent Pidgin speaker in Moraei but Agurio, and he is not quite that, (and, of course, Mbagintao).

The origin myth told of stone clubs (drilled stone) and arrows, the arrows broken and "planted" about the hills and valleys, naming sites, from Wenyabi to Bulakia and across Simbari to Yo'ye mountain site in Muniri, and then to here. Men and women sprang up from these "planted" broken arrows, if I get the legend correctly. There was then a good deal of story about copulation and during mention of sexual activity, the boys from Yoyo'e's, Yara'o's, and Adjetmaga's mid-adolescent ages--even including some late adolescents--voluntarily put their fingers in their ears and at least pretended not to listen. The fact that Wanjetnumu looked up to make sure that the unmarried boys had "fastened their ears", but yet went on uninterruptedly with his story in spite of the obvious inadequacy of this sort of "protection", is very significant. The adolescents--unmarried post-initiation boys--did this ear-covering, whereas younger, uninitiated boys made no effort not to listen, and did not snicker as did the older boys, nor avoid listening as they crowded into the house.

This "avoidance" of hearing a tale of copulation--certainly, there is not a sign of it in the Fore who tell the wildest sexual tales before all aged children of both sexes--surprised me, for there was only a fully male audience. Paretai and Agurio took it upon themselves to explain that Fore boys "know about such things", whereas young men before marriage in the Kukukuku do not "know about such things" and do not "hear such stories". It is a wild extravagant claim, especially with 12 year old uninitiated Wanjipta and other 8 to 12 year olds such as Wase, who are not yet initiated, listening without even feigned ear-covering.

In these days here there has not been a sign of sex avoidance, and women do mingle in the "married" houses with the boys. The initiated unmarried youths, however, do sleep only in the kwal anga. The new-style rectangular kwal anga in the upper hamlet which was in use last year while I was here is still in use, and the new kwal anga at the site of the old Morandugai kwal anga is vacant, except for occasional use by some of the half-dozen visiting Muniri youths who came two days ago and are remaining for the excitement of our patrol.

We have been brought ample food for the huge cargo line of 30-40 I have with me and the full dozen of additional Agakamatasa Fore who have trickled in during the past three days--not on my line, but just "visitors". Wanevi has come and Tsokam and Mbaimbana and others with him. Levit and Tarubi have both been told by Dick Hornabrook and Gerrets not to leave their Aid Posts, and thus I am relieved of the responsibility of taking them along. We hardly need them, but I was reluctant to say, "no". They both wanted badly to come.

I had so much trouble last night with the cargo bois and the local boys making loud shouts and rowdy screaming during my attempt to record the legend and the translation that I was very discouraged by late evening. I vowed to dispatch the entire group of Fore back across the Lamari, and if I had done

so, it would have been wise, for I would have had then only the local Kukukukus to rely upon and, difficult as that might have been, they only shine forth and help well when they are placed in such a role of responsibility. I have now left enough supplies here to avoid much of a cargo line when I finally return, and whatever group I take from the Fore will immediately be paid and dispatched home, while I remain here for a month or more. I wanted to do just this on the past two trips, and I am always short of time, and needing carriers of reliability for passage eastward.

I have finished sketch-mapping the hamlet, sleeping arrangements, and got far along with a complete genealogy of the Moraei population. This has been a very revealing task, and the possibility of getting a reproducible family history with reproducible names I gave up long ago, and now find that I can succeed. Tabooed relatives are not named, even by those as sophisticated as Agurio, but others can be named. Women are very, very reticent to call their own names, but I can now get them to call each others names, and to name their parents and siblings. Thus, all has worked very well. Surprisingly, Injuriwambio has proved to be the most reliable informant and he seems to have the very best memory for names of adults long deceased and for small children of any of the youths. He is, unlike Mbaginta'o, very fluent in his native Moraei language and very well versed in his home community!

I have tracked down Mbagintao's whole family story carefully, and I have also spent a fascinating time tracking down the cases of congenital absence of the penis. These are more numerous than I had expected and, as I knew, they are from Muniri and Simbari, and in Moraei only by visiting or immigration. I now have three cases in Muniri, one dead, and three in Simbari, one dead. These six constitute enough to really get the study started. My careful examination of Yarego this year, revealing large mid-adolescent testes, is sufficient to convince me that he is not a true hemaphrodite or female with herniae. Yarego has been very ill with fever of 104-105° F in the past three days, only recovering on high dosage penicillin now. We have also had a full dozen or more high fevers in adults and children here in Moraei, some with cough and most undiagnosible. There have been a vast number of tropical ulcers on children and adults, and we are still treating the refractory ones and patients newly arrived from Muniri. As a result, a good part of our medical supply has been exhausted on treatment here alone!

Food has been brought at two-day intervals, but in such huge supply that half only was needed the first day, and the rest sufficed for the second. Kaukau and sugar cane were predominant in what was brought, but I have had some potatoes, some tomatoes and onions and pawpaw as well. I have purchased food with soap, salt, and razor blades, and matches, some few small knives and mirrors. All has been very, very easy and I am surprised that Moraei has handled our huge food demands. This evening Agurio has brought a small pig which our cargo carriers are now mumuing. I shall try to record further Kukukuku singing this evening, if our carriers will keep their own flute playing and singsings down.

late in the night:

I have just returned in pouring rain from the upper hamlet kwal anga where 22 of the local Moraei-Muniri-Simbari boys--all now residents of Moraei--have given me another few hours of singsing. I have recorded one full

new tape and half of another (Ampex 900 foot 5" reels, recording on one side only, for I do not know how to reverse the Nagra III to record on both sides) and thus tomorrow I shall have plenty of tape, cine and still film to package and send back to Okapa with Wanevi the next day when he and others go and we leave for Keikwambi, Simbari over the direct trail, without returning along the track I last took, via Kataramapinti. I trust this will be a quicker and easier track, but in heavy rain or after heavy rain it would be cold and miserable, to be sure!

Our cargo is packed, I have given out tobacco to the group today, and although Agurio and many of his group say they will come and carry, hardly more than a half dozen have indicated surely that they will come. The last minute I may have none or far too many--as far as Simbari, all that want to may come; the more the better! I am not worried about food, for we are carrying ample rice and tinned meat and wheat meal, and except for the Moraei to Simbari bush and the Simbari to Wantekia or Arugosa bush--both high rain forests over 10,000 feet!--the trip should not be too difficult nor long, and we should have some cooperation from the local people--but one can never be sure!

At Wonenara I can always retrench and replan.

The local tultul, Iruanjan, has indicated that he wants to make a mumu for me and tomorrow I think he is to make it, at Mbotnari, where he and Iwo'o alone now live. They tell me that two large pigs will be killed. My left eye has three times now suddenly began to pain as though containing a foreign body, and thereafter teared dreadfully. I rub it, dab it, and this increases the inflammation and palpebral edema, and it becomes an ever worse matter. I do not know just what the trouble is, and ever since the first acute episode it has not been well. The smoke-irritation while recording in the dark in the kwal anga is of little help. The Tilly lamp hisses too much to have it near, we have no working flashlights, and the smoke is dreadful. Thus, these recording sessions have been real trials, but I presume the records will be worth it.

I have broken out the box of checkers and chessmen I left here long ago, and the boys are playing checkers avidly. Chess I have not tried to start again. Checkers has been a real craze. Every day the kick ball has been used from morning to dusk, and injuries of a mild to moderate sort have been frequent. However, the kick ball bladder has lasted only five days and the pump has gone today! We have three further bladders and a further ball but no pump! At Agakamatasa another ball lasted just two weeks!

Marbles have been a craze. The carriers and all the boys were loaded with those from the box I distributed at Waieti, but here they have all been pestering me for more. I finally opened a second box today, giving most to the local children, and they have been an equal craze, now with everyone, Kuk and Fore, playing.

It is now pouring violently, the hardest rain of our sojourn thus far; I hope tomorrow and the following two nights are clear, at least, for our Simbari trip. We will need a dry day to dry the soaked trails after this!

The argument between Mindini and Mundarai which took place yesterday is not settled. In the early morning I suddenly found everyone rushing to the lower hamlet, where Mundarai and Mindini were arguing vehemently. Mindini threatened to shoot Mundarai with a bow and arrow, and they argued back and forth for ages. I had much difficulty in getting the full cause of the argument, but it was over Waiajeke's sister, Ameruwa'e, who was married to Kambue who died in 1963. After her husband's death, Aweiawenumo took her as wife. Aweiawenumo has abandoned her and given her to Mundarai. Waiajeke, back here visiting, has apparently made some overtures to have her married now to Agakamatasa, and Mindini is furious to have yet another Moraei woman cross the Lamari to the Fore. Thus, the Fore are pushing "too hard", and Mindini has assaulted Mundarai for his casual acceptance of the suggestion that Ameruwa'e might go to Agakamatasa to be given in marriage to some Fore by her brother, Waiajeke. Mindini has argued that sufficient women have gone across the Lamari, and in his anger he said he would cut the bridge, and Mundari could go to the other side and stay! I took cinema pictures of much of the altercation, and neither seemed to mind, for they argued vehemently despite the camera.

Today Mundarai has come to ask for a "court"; he wants to bring court charges against Mindini for threatening to shoot him! I have said I am not the kiap, and the Wonenara kiap is his man. However, the local people think it is not any very great or serious argument, and both seem friendly today, although they harbor some resentment. Most interesting in the matter is the fact that the Fore "raid" on Kuk woman is reaching for the moment a saturation point here, if not in the Fore.

March 6, 1964....Teiwan-Morandugai Hamlets

Just returned drenched with sweat from Mbotnari hamlet--the most valuable morning and afternoon yet spent here. The cargo boys, having finally been admonished by Tiu and Anua, left me alone--they are all off in the bush hunting. A group of local youngsters and I headed for Mbotnari this morning because the tultul Iruwanjan had requested me to come. He was killing two large pigs (one from Iwo'o and one from him--the only two men now living in Mbotnari) in my honour. I arrived to find the mumu preparations in full swing. The track to Mbotnari was unfamiliar, large gardens having been carved from the previous dense forest, so that the forested ridge was now an open garden track. We arrived at a Mbotnari I did not recognize, and only later, having visited the now overgrown and crumbling old houses, did I finally get my bearings. The old hamlet is so decomposed, overgrown and decayed that I would have guessed that it had been abandoned for years rather than for only one year!

At Mbotnari, Iwo'o and Iruwanjan have built a new ambel anga and one of the old Mbotnari kwal anga is still kept by Mbulama'numo (Mo'o). Near the house of the tultul Iruwanjan Mundarai has an unused decaying traditional long, rectangular house with gabled roof. Near this the mumu was made (Kuk: tchulugu or tchiligu). I took 700 feet of cinema and three rolls of still pictures of the events, the mumu preparation and of children fighting, playing, milling around and helping. The small children behaved quite naturally, hardly noticing me about them, and often did not notice the camera pointed at them only a few meters away. I am now so completely accepted here that I could not ask for better cinema possibilities, and it is only my

stinginess with film that now limits me. I could easily have shot 2000 feet of children playing, but I have already made our vast film supply depleted so that I am unsure that I have enough for the exciting events and strange places of our patrol. The same applies to tapes. However, it is fine to get this further record of the most intensely studied Kukukuku site, and therefore I have been extravagant with film. I may regret having not been more extravagant.

Airai was holding a handful of bull roars, the small think Kukukuku variety, (called dangayangale in Moraei Kuk), and soon he and others began whirling these about on a rope attached to the top of a supple bamboo pole some three meters long. This fashion of whirling bull roars is traditional, but they were whirling them hardly out of sight of the women and small children, and finally the bull roar play kept up until it was all done directly in the presence of the women and children. I am sure that this is also another instance of suddenly abandoning taboos and traditions, along with sex avoidance. Similarly, the young boys of 6-12 who are not yet initiated are now roaming about most of the time without their bark capes, with their buttocks uncovered, and much of the previous anal modesty is lost, and the capes almost abandoned!!

I took cinema of the bull roar whirling as well as of all other activities, and I was especially sorry to impose a self-restriction on film use with the spontaneous wrestling and fighting, reed and grass spear throwing of the small children of two to six years, and of the small boys and girls under five carrying and lugging a new infant a few months of age about with them.

4 p.m.

Just returned from the old lowest site of Morandugai where Mindini still lives and where he has also killed two large pigs and is now mumuing them. Thus, there have been five pigs killed here in the past 18 hours, four large ones today, and the Moraeis are overdoing it. I wished I had not tacitly given approval, for I am far from pleased to have them burdened with the large group of Fore visitors we have on hand, and I now see how stupid it was to keep them, instead of dispatching them promptly, paid in full! I do not really need them for the patrol, but, as it is, they will make themselves indispensable by discouraging the local Kuks from carrying. I am determined to make use of the strong carrier line only to Wonenara, and to continue on from there with a very light local line, sending my cargo on to Awarosa and Agakamatasa via Mobutasa and the rest of the Awa.

In Iruanjan's house at Mbotnari I have found a mace-like club (Kuk Moraei: ngandu). This I have taken and thus far I have not found the owner or purchase price.

Flash equipment for the Leica is finally working, with many missfires with the small AG 1 flashbulbs and small Japanese flash unit. However, I have taken several dozen flash pictures today, using mostly 1/125th second exposure, and I am uncertain that this may be too fast for these bulbs with this coupling.

The small Braun flash unit is working, and I shall now use it. I do not know how well it was charged up at Goroka, nor how much it leaks in these 3 weeks.

At Mbotnari the children were playing with the pod which contains red seeds which when crushed yields the red face paint of both the Kuks and the Awa. It is called yitauwatch in Moraei language.

Yoyo'e has returned from Aitweian with two youths from this near-by Muniri hamlet, but Tchukulugo, the youth with the congenital absence of the penis, is not there but across the Lamari-Vailala divide at Ameiaosi in Muniri. I shall thus surely miss him again on this trip.

March 6, 1964....Midnight....Tewian-Morandugai Hamlet Complex

I have just recorded the swinging or twirling on a bamboo pole of a dangayangalye, or Kukukuku bull roar at the haus kiap site and then the playing of Fore bamboo flutes and very expert fashion by Tiu and (from Mugaiauti). I have then returned and finished the drafts of three abstracts for the Society for Pediatric Research 1964 meetings--whether this week-late composition, the long carrier trek out to "civilization" and the long postal route to US will, with a telegraph-cable warning to Marion and a note urging her to try to secure "special compensation" by telephone succeed in getting me in, I do not know. It is worth the attempt. Until now I have been totally unable to do this work!

The three titles are enough:

1. Congenital Absence of the Penis in the Muniri and Simbari Kukukuku Peoples of New Guinea
2. Sex Avoidance and Pederasty with Juvenile Fellatio as a Traditional Homosexuality Among the Bisexual Southwestern Kukukuku People in New Guinea
3. Familial Periodic Paralysis with Complete Heart Block in a Family of New Hebridean (Melanesian)-Australian Aboriginal Crossing. The First Case of Familial Periodic Paralysis Described in Aboriginal Australasians.

I have still to revise the abstracts and get them retyped, but at least they are somewhat formalized and in first or second draft each! This has taken an immense effort in the midst of Moraei Kukukuku life, and I am still filled with anxiety lest I not finish the task tomorrow and get these off. We have again set a date for departure for Simbari--Sunday, March 8! However, with repeated delays, I will not really believe our departure until we are camped in the high rain-forest en route to Keikwambi--or, better, at Keikwambi, Simbari!

The two large mumus have been largely distributed to the local people and boys, our cargo line largely left out, and only myself a modest beneficiary--real Kuk style! Thus, these mumus "in my honour", are really feasts for themselves, and feasts to prepare their young men for the long

trek with me, and I get a modest leg of pig from them as part reward, but the line of my cargo boys is rather completely abandoned. In fact, kaukau was short today, and I shall have to really worry about their food tomorrow. This is more like the Kukukuku I know! Iruwanjan has been begging that I stay for two days of pig feasting and further mumus of kumu and other vegetables, but, as it turns out, it is all mumus for the local Kuk youths who might go with me, largely as passive onlookers and hardly touching a carrier load if they can help it, I suspect, I am not so anxious to delay departure with my carriers of more reliability on short rations. I have thus compromised for a one day further delay--i.e. tomorrow--with departure, weather permitting, on Sunday, March 8. We shall see what this brings!

A full bottle of Chablis wine has helped bring me to productive work and quiet application this evening. It is only in moments like the present that I contemplate how unusual is my snug little miniature house here in Moraei--doomed this year, I fear--wherein I work as in a fine NIH office, and outside of which I have such dramatic views of hills, forests and clouds that nowhere in continental America could I equal this site. Agurio and the villagers group are preparing to build a bigger and more luxurious house higher on the ridge, with a vaster view yet, and this they will do this year. I have something to live for! Uwele and Tchowe no longer flee me coyly, but hang about, hug me, and only play awkwardly their coy game of flight. Pomunji, Uwele and Tchowe are the most fickle, untouchable, and flirtatious of the Moraei youths, and to see them all now suddenly no longer boys, but mid-adolescents, is a rewarding and amazing experience!

I could also write an abstract on the sudden, delayed, and extreme pubertal spurt of Kukukuku youths--and Melanesians, in general, especially Highlanders--but this I had best withhold a year or so.

A loudly burning torch flares as boys rush past my house with the dry pandanus leaf flames lighting their way to the lower hamlet, and as they pass the pleasant smell of dry pandanus leaves in flame blows into my "office".

If tomorrow I can finish these abstracts well and manage to collect blood specimens on those unbled in the hamlets, and pack everything for dispatch, I shall be happy.

March 8, 1964....Above Kanjungwa, Camp No. 1--on route to Keikwambi, Simbari

We are camped in a pandanus forest and a large house with several satellite houses, with fern, limbum, and pandanus leaves for roofing, have been built. The camp is only a few minutes further up the trail from the houses we occupied on my last trip over this route, and the previous houses, somewhat modified by the Moraeis, still stand. Some 20 minutes further down the trail are two forest hamlets, each of three pandanus-camp dwellings. These are hamlets of Wantaki and of Iwo'o. We left Moraei at about 6:30 a.m. and all cargo was already assigned and tied, so the problem of setting forth was minimal. All the women and children and men assembled to see us off, and at least a dozen youths are with us on the trip, most helping as carriers. I have a huge line, for I have not hesitated to take relief carriers for the heavy loads at least through to Wonenara, and I have also decided not to send all the children hanging on, home, but let them "see the world" with us. We

moved upward along the trail quickly, had no trouble with the steep descent to the Wema'e River which we crossed, and then ascended again to finally meet the Kataramapinti trail just at the bush hamlets of Iwo'o and Wanteki from Morandugai. It was only about 10:30 or 11:00 a.m. when the cargo eventually reach our current site, and I was very much prepared to go on to the summit of the range and cross down to the "moorland" site I like so much. The carriers were not, so we have stopped. Furthermore, after we left, another crowd of Morandugai men, women, and children came along for a day or two in the bush and the women carried large loads of kaukau for a huge kaukau mumu which is now being made down at the bush hamlets below our camp! It has been a slow camp construction and it is only now complete in late afternoon, but here, beside a warm fire outside the haus kuk and in front of my newly erected large house, I am soaking my foot which is very painful with interphalangeal maceration in three interphalangeal spaces. I have had no athlete's foot this trip, but now suddenly I have what really looks like it--acute and severe! I shall try to paint it with tincture of iodine--I have little else!

In the huge trees about our camp the boys suddenly noted a "kapul" hole, and two Fore climbed high into the trees. High up in the trees they suddenly produced a large cuscus, strangled it, and threw it down-- five minutes later they found another, still larger, cuscus and this too was quickly dispatched and tossed down. I took pictures of the two dead iga (igai) with white bellies and black backs, and curvy long tails. One was said to be the offspring of the larger female. Both have already been cooked in a meter-square piece of bark which was rolled into a tube containing the "plucked" cucuses (the fur was pulled out) and fern fronds. The rolled bark cylinder was turned over a hot bed of ashes and small flames until the cucuses were cooked. The characteristic smell-- a pungent, wild smell, somewhat too sweet for my tastes--now permeates the cargo boi house adjacent to my own where all the older boys ate the cucuses, but Koiye and the younger boys were not given any, it being taboo food for them. For the Fore and Kuks it is their favorite food.

We are camped in a dense forest of pandanus, but the trees are all owned and Agurio warns our boys not to take down ripe nuts, for the Moraei owners are not with us and they will be angry. The village of two 3-house hamlets some 20-30 minutes walk down from our camp is filled with all our Moraei boys--even Waiajeke, Injuriwambio, and Yoyo'e stay there--with many men, women and children who have followed us this far. The huge quantity of pig meat mumued in the past two days is being finished, and bilums filled with chunks of cooked pig, dripping with pig grease, are hung everywhere. The pig feast lasting several days is nonetheless largely for the Moraei youths--especially for those coming with me--and very little is offered to our large line of Fore. From each mumu (Mindini's and Iruwanjan's), I was given a large leg of pig, and for both I have paid generously. However, my Fore were given nothing, and have only got what I have given them of these two superfluous legs of pig. In addition, Iruwanjan cut some five pounds of choice strips of pork fresh from one of his pigs before mumuing and gave this to me packed in fern and banana leaves. This Anua boiled and then diced up to make a rich thick soup with onions, tomatoes, potatoes, etc. The strange lack of hospitality toward the visiting Fore except for those few who know them so well that they barge right into the houses, sleep there, join in in the feasting, etc., is typically Kukukuku.



Before I left Moraei this morning I gave Mindini a blanket and also another to Utunaga (Kuks call him Usinaga), the Takai-Purosa native missionary living here with a Kuk young wife! The six bush houses in the settlement of Kanjungwa below my camp are all made in traditional style for such houses with pandanus leaf walls and roofs, the leaves being held between concentric rings of upright poles some 3 feet high for the walls. The houses are of two types: round with a conical roof and rectangular, with rounded corners, and with a straight gabled roof. Roofs are entirely of pandanus leaves laid very neatly and they are very dry and warm. The walls keep out side winds well. The floor is the earth covered with fresh fern fronds.

Besides the six houses (one round and two gabled in each hamlet) in the hamlets, there are two further such traditional houses at my last-year's site of camp which is only some three to four minutes below my new bush camp. Our cargo boys are making use of these houses, some are sleeping down in the hamlets with the Kuks, and others have built a house here adjacent to my new house in the pandanus forest.

There was a hooting bird calling along the trail as I ascended back to my camp from a later afternoon visit to the Kanjungwa hamlets. Undopmaina listening to this told me that this bird never sang during the day, but only about a half-hour before sunset, and that when you heard this bird along the trail you had best stop quickly and make camp lest you be overtaken by darkness. As we listened to all the different numerous bird calls in late afternoon, Undopmaina reminded me of his bird-hunting fortune on our last sojourn at this campsite.

We are a big group, but until we finally depart from Simbari and I see how many Moraei stay with me, I shall not really know the size of our group. I doubt that many Fore will attempt to leave then, and thereafter leaving our line is nearly impossible.

The trail here from Moraei-Morandugai is far more direct than the round-about route via Kataramapinti which I took last year. Unless there is a real reason to go to Tchiriara, this trail should always be taken.

The boys are keenly aware of all the edible wildlife in the bush, constantly noting big game birds excitedly. However, I have no gun in my party and no one is even carrying hunting bows and arrows at the moment! Thus, we look at the birds perched on high limbs and the boys excitedly keep watching them and pointing at them and commenting upon the fine breast meat they have! The cuscus catch was a big one and very fortunate. The smaller must have weighed some five pounds, and the larger perhaps ten pounds. Here in our camp in the rain forest--surely some 7000 feet high, perhaps almost 8000--we are bitten badly by mosquitoes, of a very small species, this evening.

With bilateral conjunctivitis, a severe maceration of the interdigital spaces of my right foot, large healing tropical ulcers and a just now healing dislocated achromio-clavicular joint, I am far more a wreck than I have usually been in the past in the New Guinea bush. Furthermore, the two bouts of severe illness on arriving at Nosiguri of Kamira, and at Waieti of Agakamatasa, have been an ample share of illness on this New Guinea sojourn.

March 9, 1964...Kami'e

I have made a camp against the advice and desires of my whole line, for they all wanted to rush on to Keikwambi and Tchetchai, Simbari, where we should have arrived at mid-afternoon. As it is, we are at about 1:00-2:00 p.m. in clear sunlight still, admittedly with threatening storm clouds all about, and our camp is nearing completion. Whether it can withstand the rain and wind of a severe storm at this altitude is another matter! Strangely, the eerie marshland with slowly flowing headwater streams of the Kupinga river of Muniri is very unusual and so is the surrounding fire damage of the high-rain-forest which borders this forest-enclosed moorland swamp on all sides. Eruasa and others from Agakamatasa were rather frightened by the severity of the landscape in the overcast, chilly, morning when we arrived after a four hours hike from our camp at Kanjungwa, five hours for the cargo! We set off at before 6:00 a.m. and everyone was here by 11:00 a.m. We could certainly, have gone on to Simbari hamlets as we did before, and this time more easily in better weather. However, I have long wanted to camp in this remarkable valley at very high altitude and we have done so. The two bark-roofed primitive shacks of the Simbari Kuks which were here when we last passed, were still here, even more decrepit, but these have served as the nucleus for our camp. They needed only cleaning and some refurbishing of the walls. However, the carriers have built two further shelters, both fern-frond roofed, and a house for me. Agurio has sent off the Moraei Kuks with us for bark for roofing, and the frame is already made and partly fern-frond roofed already, awaiting the return of the Kuks with bark. We would have been a sorry mess trying to make camp here in the rain, and we may soon have rain. However, the weather has held until early afternoon and we have had time to get the starting of a camp well underway already, which is very, very fortunate.

Late in the afternoon-sunset:

It is raining, not pouring as it did briefly last night, but gentle, continuous, cold rain, and fortunately without wind thus far. All afternoon was overcast with sunlight coming through in varying intensities, for brief periods actually hot and direct, but most of the time hazy and shaded by cloud cover. However, it was warm enough to swim for a time in the stream, and there are wonderful swimming stretches, only some three to four feet deep, others as deep as four to six feet! At times of higher water they would all be four to eight feet deep.

The stream was very cold, but the sunlight and air were very warm, and so we enjoyed the swimming greatly. Later, we frolicked about in the spongy moss into which we sank six to eighteen inches with each tread. After rain it would be a wet blotter, but now it was very dry and wonderful, in most places dry enough to sit on, wrestle on, and roll about on without getting more than slightly damp.

These few hours of play in the streams and on the moss fields were worth the whole effort of making a camp here. We are camped on a low summit just above the junction of the Kamiagogo creek and the mainstream headwater of the Kupinga, which they call Kupinga. The Kamiagogo is a small stream flowing along one edge of the moss-fields, while the Kupinga comes from the north-west in a valley between burned-out trees and the lower slopes of which are also

moss-fields. The two join just below our camp and flow across the rest of this remarkable basin, finally dropping down to the Muniri-Kupinga valley, but we cannot see the exit, from here, our basin appearing hill-surrounded. The cause of the great fire which has occurred here is difficult to ascertain. Whether this place could ever get so dry as to support such a fire is from all current appearances of the surrounding rain forest highly improbable. That this could be a volcanic basin, under all this swampy moss seems unlikely, and a recent volcanic eruption would have done more than this. Lightning is most likely, after a long dry spell, but this would be very, very unlikely in such a moss rain forest!!! Agurio does not know when the fire occurred, and the young men with us know nothing about it. A few have heard the story that a man camped here at the "hamlet"...two bark-roofed houses before we constructed three more in the complex...was smoking when heavy winds carried his fire to the bush and caused the forest fire. The huge trees were all burned, so it must have been a very, very unusual dry spell if this is true!

There are two further houses, even in greater disrepair until our Kukukuku group with us has now restored them for their own accommodations tonight, in a site in the bush above Kami'e where we are camped. This site is called Kupe, and there were two houses there as well: one kwal anga, one ambel anga.

While I have been typing it has poured harder, and the house is still rainproof! If it remains so all night, I shall be lucky. All the cargo is in my house, Agurio and Koiye are to sleep here as well, but without a fire it is too cold for those without blankets. The cargo-boi houses are all tight and warm--but smoky and crowded! I have a well Tilly-lamp-lighted desk upon one of the cargo boxes, and I have managed to make out a carrier list and tabulation as well as to scale out three basins of rice (12, 13, and 11 cups each, respectively) and 14 tins of meat (5, 5, and 4) for the three groups into which I have divided our line for the purposes of cooking food in our one large hot water pan.

In the high forest en route up to the summit of Mount Inambe (Moraei name)--which must be about 11,000 feet high--we passed a fine bower bird nest (Fore: "ose", Moraei: "nangutnya", Amdei: "yata"). Further up we began to be very cold, our hands even numb with the cold, but the imposing view down to the Papuan lowlands down the Kupinga valley of Muniri, and across the rugged Lamari drainage to Karamui and beyond, was worth all hardships of the trip. I took much still and cine photography from the near summit lookouts, and from one we removed a large number of small trees obstructing the view to make it a far better look-out. Fortunately, although it had rained all night at our camp, it did not rain this morning during our trip here, and we had only wet, muddy trails and wet foliage to push through. The trail required much cutting to get the cargo through, but I rushed on ahead to Ata, Pauwa, Ai and Uwele carrying cameras and struggled through without clearing it. Later Undopmaina caught up with us, and the five of us arrived long before the rest of the line. Utunaga and "kalabus" (Nangungbage, who was put in Wonenara jail for three months by Jeff Booth in his unfortunate first experience at Moraei!) have gone on ahead from Kami'e to tell the Simbari people of our arrival and to see if they can help round up food and get a house started for our line.

We are now engulfed in the clouds which almost always cover these ranges as we view them from Waieti, but we are rather snugly housed; and if we do not

have a real storm or cold wave, we ought to fare well. Everyone has eaten well; and in addition to the rice and meat ration, there was still a fair amount of kaukau in our carrier's and the boy's bilums. Thus, we ought to arrive early and well in Simbari if we do not have really bad weather. Simbari will be the most "remote" of communities of Kuks which I shall be in on this trip, for even Amdei and Usurampia and Nalambde are nearer to major trails and stations. However, if we do have good fortune on this trip it should be a very, very valuable expedition. I am counting on the films and the tapes I have already sent, but I am still a bit afraid of the Agakamatasa shots on the new Bolex which appears to be focusing poorly and indistinctly compared to the old one, which I am now using almost exclusively.

Including my six Moraei boys (Injuriwambio, Agurio, Adjetmaga, Yoyo'e, Nagai, and Paretai) we have another fourteen from Moraei traveling with us to Simbari. With Paretai and Undopmaina I have better trained and more extensive Western Kukukuku dotka-boi assistance than would any government patrol thus far have had. We certainly had a huge "clinic" each day at Moraei--with at least half the women and children and perhaps an equal portion of the males appearing for treatment of ulcers, wounds, and febrile illnesses.

With the large package of films and tapes I dispatched just before leaving from Moraei, with Wanevi returning to Agakamatasa, was most of my Agakamatasa field work in the genealogical and family cards and the village plans. I have also sent out long notes to Dick, Flora, and Marion and the full journal to date. Most important, however, were the three papers for the Society of Pediatric Research which, being so very late, may quite probably be rejected. Furthermore, they may not be the laboratory-type studies which the Society favors, and these I could have dug up from our many studies in the NIH, but from the Moraei bush it was impossible to do anything of the sort. I will certainly write up the three abstracted reports for publication immediately upon my return, and get them all published shortly: but I would like to have them in the Society, if at all possible.

March 10, 1964...Keikwambi, Simbari

We are here, and camped just above Keikwambi, instead of just above Tchetchai, as on my previous visit. In fact, I am camped in a neat and tidy rectangular plaited bamboo house with a kunai roof made by two Simbari youths who have worked in Wonenara. They have given the house to me for my own use, and our cargo line has built some 100 meters away, on a dramatic bank, a series of three large shelters. A haus kuk has been built right behind my neat little house of about 12x10 feet dimensions, and into it we have managed to crowd all the cargo, having first to enlarge the door considerably to permit passage of cargo boxes and bags of rice.

We arrived after a long morning trip from Kami'e through dripping rain forests the whole way. Since it rained moderately, but not hard, all night, the trails were very wet, but they were not soaked, and we had more the constant drip from the moss forest through which we hiked for about two to three hours, from our 5:30 a.m. start to about 8:30, before we finally left the Muniri drainage behind, and started down the very, very long descent to Keikwambi. The leeches were really terrible, and as the previous day, we forgot about them until too late, leaving the mite-repellant which worked

moderately well for leeches also, in the tied medical box. Thus, the trail was a bloody mess behind our carrier line and on three occasions I had to stop and remove my shoes to remove stacks of leeches that had got in through my shoes and socks. Since Moraei I have worn only long jungle trousers, and they have been well worth it. The leech menace is so universal here in the Kukukuku that I find it unnecessary to comment about it, for days on the trail free of leeches would be more unusual than days they have been a problem. However, on our climb up the summit of Mount Imnambe and again on our trip here from Kami'e we have had unusually numerous and blood thirsty leeches to contend with. At times the boys would accumulate several dozen on their legs and feet in less than six minutes of trail.

We finally arrived here at about 10:30 A.M., after five hours of trail, much of which we had to cut clear to get the cargo through--even ourselves, at times! The last hour was punctuated by large plantings of pandanus palms, many cuscus traps set in the bush, and finally two "gates" of the type we passed on our way up from Moraei, which these southwestern Kukukuku often make high in the rain forest along the trails, especially when they are out on large cuscus hunts. Above Moraei one such site, was cleared and decorated along a wide, clear path with "tankets" and flowering plants, as a site for resting during kapul hunting.

I am typing outside the house, with the fantastic view down the Purui (Puruiya) River to the mountainless Papuan lowlands. On other sojourns we have not had the lower valley so clear and cloud free, and I believe this by far the best view I have had of the lowland plain from the interior Highlands. As I sit in bright sunlight in the late afternoon sun, Iwane, Yo'we, Indonalye, Tchangari, Borokwangari are all upstream from us, all now clearly visible, listing them clockwise about the headwaters. I get the name of the mainstream here a dozen different ways: Puruwiye, Puruya, etc., etc.

Just after arriving here, we were surrounded by wonderfully dressed Kuks, almost all except for a few late adolescents in traditional garb. As we neared Keikwambi on our way here, two small boys wearing bark campes, mulu, muniri, chimiks, kanilas, and hiding just off the trail in the bush, jumped out on the trail and fled before us. I quickly shouted "indolambano", and waved to them, and one turned about, looked at me, shouted playfully "Kaoten", and came back to shake my hand. The other more timidly finally approached. They led the way down the final half-hour to the village, constantly rushing ahead, stopping to turn back and make eyes and send eye messages to me. There was something a bit comic-opera about my trying to answer them with tearing, conjunctivitis-filled eyes, painful and hardly manipulatable. It was something like trying to converse suffering from a bad case of gingivitis and stomatitis.

I looked over the local situation of the new house offered to me, found to my pleasant surprise that it was only 30 meters from the village site which itself is dispersed along some 100? meters of ridge and connected by a wide track to the kwal-anga-center of the village. Tiu and I headed down the ridge toward the site of the "chiriguta anga" which we occupied on our last sojourn here, just above the Tchetchai hamlet. The trip down was further than I recalled, and there where the chiriguta anga had stood was a decaying haus-kiap-like structure which we decided was not worth repairing. Further down the old Tchetchai hamlet was in complete decay and completely deserted,

the "kwal anga" and the two "ambel angas" were decrepit and tumbling. However, only a few dozen meters further down a new hamlet was constructed and occupied. The women were all off to the garden getting kaukau for our line, and the doors of the "ambel angas" were boarded up, often with old shields. There were five "ambel angas" and one "kwal anga", two of the "ambel angas" newly built.

In the "kwal anga" we first saw nothing and thought it empty. Tiu, however, noted someone hiding in the shadows, and so we entered to find a cowering, quivering, trembling youth of about sixteen hiding. We assumed he was sick, and on asking him he indicated that he had "kaskas", using the Pidgin term which our medical trips have made current. I asked him to stand, and he trembled like a kuru patient when he tried to do so, and could barely stand. We tried to find out what was the cause, and he pointed to insignificant old sores on his foot indicating them as the cause. However, Tiu noted some blood on the heel he was hiding from us, and on closer inspection it was obviously a fresh arrow wound of the Tendon of Achilles from which the arrow point had just been removed today. Further questioning revealed that there had been a fight between the Tchangari and Tchetchai people, old enemies, in spite of their close proximity across the Puruya from each other, and that the wound had occurred three days ago. The Tchangari's had suffered two forearm and one calf arrow wounds they told us, and the Tchetchai's only this wound. I promised to return with dressings and a penicillin injection for the youth.

I have now had a good meal; Anua has baked a sort of pancake that is very good, and I have now typed up these pages, with a great crowd of Keikwambi "kawatnye" (post-initiated boys) seated about me in my house. At Moraei this year I had difficulty reconstructing the age-terms which I had obtained years ago. Here they now are:

|                    | <u>male</u> | <u>female</u>                      |
|--------------------|-------------|------------------------------------|
| child              | kwalai      | tai                                |
| initiated          | kawatnye    | tchintchirai                       |
| 3rd stage initiate | itmangwe    |                                    |
| marrier            | nopos       | anbeiwai (already<br>post-partial) |
| "lapoon"           | yanga       |                                    |

Agurio adds two terms for stages of youthful initiation: After first initiation in which they practice "shutim nos" (called "muka", the term for a boy after this ceremony) they also fasten the muniri and mulu but after which the boys still wear skirts of bark ("awanga"). The next stage in which the first initiates ("muka") of 6 through 12 are now 10 to 15, called "imbota", is a ceremony in which new skirts of reed are fastened: "kanila". The boys after the "muka" are called "lipmopi". Finally, in mid to late-adolescence, the third stage initiation, or "itmangwe" is conducted

The male initiation sequence is thus: kwalai--muka--lipmopi--imbota--itmangwe--nopos--yanga. Thus, I now have a somewhat more detailed story, with three clearly differentiated initiation steps: muka, imbota, and itmangwe. The muka is conducted before the kwalai can stay at the kwal anga. The muka still wear the "awanga" and only the bark capes ("numbwai" or "ivita"). However, the "imbota" now wear "kanila" and a bark strap covering the buttocks called "indu'mowia". The small boys, even "muka" and "imbota", wear arm bands

low on the arm, called "akayala". The "itmangwe" are given arm bands worn high on the arm, distinguishing for them, called "atmunanta". The "itmangwe" also have much other finery of the fully adult dress: "kwolyabuta" (cassowary bones worn above "kanila" and a "belt"); "nagimjimbwie" or a "chimik" (nose piece) made of the thick portion of the kumukumu shell; a new "kanila"; "yemenamunta" (a woven frame for holding cassowary plumes and feathers of birds on the forehead); "sinamunta" or a tightly "woven" band of " " shells, and a "namurugutnya" or yellow orchid fiber headband worn first by the "imbota" and still by the "itmangwe" but not by the "muka"; "kuga" ("kura" or a round piece of shell worn in the center of the forehead); "tchogamunta" or a chest band of pig teeth; the "imbota", besides getting the "kanila", receive "namurugutnya", "unguruma" (black Job's tears chest bands of beads), "indoga'ata" (bird feathers with cassowary feathers); "nirambie" or the "chimik" made of cassowary quill with a woven braided yellow orchid stem fiber ("muniri") tip; "nungie", or girigiri chest bands; "nditnawi" or the bark buttuck-cover. "Ovelamunta" or a stem of the kunai-like grass used by small boys (kwalai and muka); "kwaiamie" or a cuscus bone used as a "chimik" of the "itmangwe".

I have begun to get new complete descriptions of the various ceremonies: "muka", "imbota", and "itmangwe". Paretai gives the following account of the "itmangwe" ceremonies: The novitiates, all already "imbota", are kept in seclusion in the kwal anga and the younger boys (kwalai, muka, imbota) are kept away as are all women. In the bush an edible leaf is collected--called "ikola"--and this is then cooked and eaten by the assembled men and initiates. Those already "itmangwe" and "nopus" conduct the ceremony. Paretai adds that youths are left as "imbota" until there are enough mature and maturing girls to provide wives for them shortly after the ceremony of "itmangwe". "I gat planti yungpella meri susu em i save kum up, orait, man i nup wokim "itmangwe"". After eating the "ikola" sugar cane is eaten (in Pidgin "man i save drink suga", i.e. one "drinks" sugar cane, not "eats" it.) and thereafter there is a feast of many foods from the gardens: "watcha" (kaukau), "kwagu" and "iulausa" (yams), "tugu" (taro), "nari" (sometimes said "nagi", banana). Then there is an all-night singsing ("ndata"). Before sunrise the new initiates are dressed in the new finery of the "itmangwe" (as listed above) and taken outside where nose bleeding (shutim nos") is conducted. The Moraei call this procedure "chimbuta enga", and the "pitpit" used for the procedure is called "yemia". The initiates are also wearing over their shoulder a new "bilum" ("kuta") in which they carry pitpit and a red "tanket" ("ungwoka" and "mbwembola") and after a day of resting in the kwal anga after eating sugar cane there is a further night of singsing. The second morning they go up into the high forest where the pitpit in their bilums ("ungwoka") is carried high up to the top of the wild pandanus ("watnyago") and placed there. The significance of this escapes me--and Paretai! Thereafter they return to the village and can be seen by the younger boys and women (from a distance). New bows and arrows may be given to them at this time, but this is not spontaneously told me, and only admitted after I asked specifically. They are NOT given as part of the earlier "muka" and "imbota" ceremonies.

March 11, 1964...Keikwambi, Simbari

A warm and quiet night with the discovery this morning that the only good large axe with us was lost or stolen and hidden, or simply left behind at

Kami'e. Since we can ill afford to lose any of the few axes and bush knives we have for making camp, (for I am not carrying extra and we are already short) I have made a fuss, and from each group represented by our line (Moraei, Mugaia muti, Agakamatasa, Ivaki and Awarosa) I have dispatched a party of five youths to Kami'e to hunt for the lost knife, with food and matches for them to remain the night if it is too long a trip. If we recover it we shall be most fortunate. I have also made an issue of "dull" axes and knives in our party, which are always the excuse of those carrying them not cutting bush to make the track more easily passable for the carriers behind. Thus, I have assigned them all for sharpening, and given Tsokam the job of keeping track of the essential tools. We have only six large bushknives and six axes (four hatchets and two axes--one on a shortened, broken handle) in our party now, counting the "lost" axe!

We have had a heavy medical task both today and yesterday, and much penicillin has been injected for ulcers and sores, the arrow wound, an older woman with pneumonia, and minor injuries which are suppurating. We have used up considerable supplies of dressing materials and ointments as well, however, we are now in control of what illness has been brought to our attention.

at night...perhaps 11:00 p.m.

The first episode of real tension, more the rule than the exception for a "normal" day in these uncontrolled Kukukuku regions, has occurred today. We have been besieged and overwhelmed by our hosts, and the young boys have crowded about our camp from dawn to dusk, and our Moraei boys, including all my Kuk boys except Undopmaina, are sleeping in the kwal anga and two adjacent men's huts in Keikwambi proper, and I am just beside the village. However, we began to have trouble with the very exuberance of our hosts. Thus, by late afternoon so much food was brought that we were buying food we did not need and could not possibly consume. I had to call a halt, but the Kukukuku from Keikwambi kept insisting on salt, matches, knives, razors, etc.--they do not want soap, so much in demand in Agakamatasa and Moraei now, with laplaps the rage. Koiye and Injuriwambio have done very well purchasing food, and the two have taken on much more work than any of the others, and reliably as well! However, they could not but concede to the demands of the Kukukuku women and men for salt, and were too generous, resulting in the depletion of our salt supply to a quarter bag, from the over three-quarters full bag we brought here! I thus had to stop the purchases, or we should be so depleted of trade items as to be unable to purchase food for the rest of the trip. This stopping of the purchase understandably angered those who had dug and carried kaukau for us, and I tried to be reasonable, to buy a bit from each group, but unknowingly, left most of the Tchetchai people "holding the bags"--literally. They had come further and had had less opportunity than the local people to sell kaukau to us, and thus were rightly and understandably disturbed. When we refused to purchase more explaining--or trying to explain--our depleted trade supplies and oversupply, they left in anger, and one of the older men threatened to shoot our patrol with arrow, crying that he was not afraid of the klap of Wonenara, of cartridges, or of white men. This angered my group so that there have been many angry exchanges, and the angry Tchetchai people have gone off carrying their kaukau, which they claim they had planted for a government patrol, and had now dug for us, and we have not bought it. It is a bad error, and I have tried to redress it, by sending word to Tchetchai that we shall purchase their kaukau tomorrow enroute through Tchetchai to Iwane, if



they will help us carry it with us. We are already carrying six ruck-sacs and the near empty salt bag full of kaukau with our carrier line, and this will make purchase of kaukau at Iwane nearly impossible. Fortunately, we had a large number of severely ill patients from Tchetchai in our medical treatment line both this morning and this afternoon, with a girl of about 10-12 with emaciation, spindly legs, and severe constitutional disease from extensive yaws involving her arms, legs, back, shoulders, nose and lip. We have given her ample penicillin treatment and dressed her lesions and will give further penicillin treatment tomorrow morning. The youth with the arrow wound is treated. There is an Iwane man with an arrow head injury we are told whom we may see there tomorrow. The Tchetchai people had others with yaws as well, at least three adults with lesions I could diagnose as yaws. There have been dozens and dozens of small, some large, and a few huge tropical ulcers for treatment, and we shall have to continue dressing and giving penicillin to these patients both here and at Tchetchai tomorrow. Some from Kwoorakwanga (Kworakwangari) have also come. The tension of the afternoon has relaxed, but not totally, and it was high for awhile. My error lay in purchasing too liberally, paying too easily the high and exorbitant demands of the Kuks who bring food, and thus stimulating too much to be dug and brought! Paying more stingily results in trouble too and thus there is no easy way out! Sugar cane, pitpit, some kumu, and a few tomatoes and cucumbers have been brought.

I have purchased two small stone axe blades, one hafted stone adze, and one disk-shaped, torus with cutting edge stone club, the handle of which was make-shift and this I have discarded. I have also purchased one fine shield in its bilum, with a leaf tied on the users side, which the women are said to fasten, and other leaves stuck in the front in the bilum as decoration and with some mud-painted stripes of decoration on it as well. It is a much used shield, with arrow holes.

These five items and a small wooden "toy axe" made entirely of carved wood which one of the "kawatnye" was carrying are the only items I have purchased here. The wooden mace-like club I got in Mbotnari is, however, the best item of the trip. Adjetmaga claims to be the owner, but it does date from before his time.

I recorded again in the kwal anga this evening, mostly Kwoorakwanga songs, but a few from Keikwambi itself were sung. One was said to have been made for the eclipse of February 1963, which we saw at totality at Agakamatasa and which was the occasion of the construction of all the "chiriguta angas" which we used on our trip from Okapa to Menyamya in the Kukukuku region. The song was identified by Agurio and others as sung on that occasion for that occasion, in response to the fear it caused. However, the only words I can get from it are: "kwaga....", which means the "earth" or "ground" (Pidgin: graun) of the place... the Earth of the Vaterland, more poetically.

We are told here of rumors of trouble with the airfield and plane coming into Wonenara. But the story is varied and uncertain. Some say a plane crashed or nearly crashed and that the pilot was not lost. Others say that the airfield itself has had a washout and landslide at the far end. If the plane has stopped coming into Wonenara--and it is certainly a most dangerous strip that should be closed!--the station is apt to be on short rations.

I have done a good deal further cinema and still recording here today, including flash pictures in the kwal anga and ambel angas. I am not sure whether I used the right coupling for the electronic flash unit when I was using it at Moraei. I did use the correct coupling for the bulbs, but these often misfired. I am now trying to conserve 35 mm film of which I have very little left, and thus I do not want to waste much on misfires of flashbulbs, of which I have ample.

Sex avoidance remains here, and has been the cause of argument and contention. The Moraeis have abandoned it as have the Simbari youths coming to stay for long periods in Moraei. The local people have not abandoned it and do not want to, and they are very angry at the Moraei people for doing so. Thus, we have a strange camp with my Moraei boy walking about and visiting the women's houses and the local Simbari youths cowering behind my house here when the women bring food. However, they do so in closer proximity than previously, and with less anxiety. Even when I have an old woman come around, they rush off coyly, hiding themselves in their bark capes or under cloth laplaps in the familiar "Spanish shawl" fashion of Latin women, but they do so slowly and without the anxious panic of previous years. It is a failing and fading tradition. I have recorded it on cinema as well as possible. There is still ample evidence of homosexuality, and the small boys make suggestions and gestures, but the older boys with Wonenara station experience and the many who have been now to Moraei and the Fore and on patrols with us, speak sharply to the younger and keep admonishing them, and keep a wary eye out that they do not stay about with the cargo boys, etc. In earlier years, the older boys themselves and the younger unmolested by them, made for all visitors with their embraces and propositions, often overtly. Thus shame and cautious restriction has been grafted on the previously open homosexuality by contact with the outside world. The feminine behaviour and appearance of the kawatnye and some of the older youths remains, however.

None of the Kukukuku songs I have thus far recorded are about women or sex, and when compared with the great many Fore songs about sexual matters this is very remarkable. When asked directly, Undopmaina says that at his home in Amdei if the youths and unmarried boys sang songs or told stories mentioning sex and women they would be beaten by the older married men! Only out in Goroka with the school boys and at the dotka-bois dormitory has he finally heard "girl-stories" and "sexual stories".

Undopmaina's difficulty with the local language--which is greater than that of an intelligent German for the first time in Holland with Dutch--is clear cut and the Moraei-Simbari-Muniri-Bulakia-Iatweia language is certainly different from his of Amdei-Usurampia-Marawaka-Barua. However, there is moderate mutual intelligibility, and with practice he is beginning to overhear much of this language. He can also make himself understood slowly but correctly. He is as hesitant and reluctant to try as the Svedmyr boys were with me in Oslo, when they felt lost in Norwegian.

The kwal anga on one side of my house is filled with song which pours over to me, while from the more distant cargo bois houses behind my house, the Fore are also singing--their songs about girls, largely!!!

The small boy whom we photographed in 1957 at the door of a kwal anga at Kworokwangari, I believe, is here as a mid-adolescent, with the same foot deformities, and I have redocumented him in still and cine photography.

March 12, 1964...Iwane, Simbari

We left Keikwambi at about 6:00 a.m. with the cargo line singing as we descended to Tchetchai. The Tchetchai men and youths waited for us assembled before the old men's house, and they were neither friendly nor hostile. They indicated the road to follow for Iwane, and I sent the cargo line on while staying with them for a quarter hour to find if there were further sick to treat. From 7:00 to 8:00 a.m. Undopmaina and Paretai gave injections to those large sore and ulcer patients we still had under treatment at Keikwambi. Here at Tchetchai they insisted that those few we treated at Keikwambi this morning who had remained there for the night, were all the ailing they had. The youth with the arrow wound of the heel had already left for Iwane to meet us here! However, the major matter on my mind, the small girl with emaciation and extremely severe generalized yaws, was not there, but at the hamlet on the next ridge nearer to Iwane. They said we could find her when we got to Iwane, but this has now worried me, and I am trying to send people out to find her. I fear that her one injection of procaine penicillin may not be sufficient.

As we dropped down to the Puruwiya (Puruya) River, there was a wide clearing of kunai on both sides below our ridge, which sites were immediately identified as warfare grounds. In both there were kunai-grass hiding places, and one prominent arrow-shield made of split posts standing upright in a tight fence-like structure. I took pictures of this, and then crossed to the Puruya which in low water is easy wading. We took the very same route which we took--in reverse direction--in 1957 from our Iwane camp to the kunai-site below Tchetchai where we made camp. At Iwane, as I recall, the people deserted as we approached, and we found only an old man and some boys in the gardens to help us.

Down at the river I found myself struggling over a vine which turned out to be anchoring a fish trap, or rather an eel trap. This is called in Moraei: "kwaulembiula" which is for catching eels which they call "kwaulembi". The trap was a meter long, 12 cm. in diameter cylinder sewn longitudinally together with rattan and bound in a half-dozen places with rattan binding circumferentially. It had a round trap door sprung very ingeniously, and its deep end was screened with a "grating" of small sticks. I would very much have wanted to purchase this, but its owner was high up at Tchetchai, and said to be the man angry at us for not buying kaukau. I was assured that I could find these at Iwane, but I doubt that I shall get such a fine specimen. The Moraeis insist that they make the very same eel trap for eel in the Indauyaga (Lamari). I took many cine and still pictures of the trap and then crossed the river to the island in midstream which we follow upstream several dozen meters, perhaps a hundred, and then recross to the same side as Tchetchai and soon reach a large tributary of the Puruwiya called the Indalenjiab. Here everyone bathed, and I found a 25 meter stretch of deep water along the Puruwiya shore which was without swift current and I swam this twice with everyone looking on. Then we climbed up to Iwane, having already been met by Iwane people who came down to greet us and who had been watching our descent from Keikwambi and Tchetchai from a ridge. We had seen here in Iwane, from

our Keikwambi camp, the smoke of a mumu fire burning this morning and were told it was a kaukau mumu in preparation for our arrival. The Iwane boys had come over to see us yesterday, and they informed us that the people were adding a haus kuk and an extension to the small cargo boi house for our group at their new haus kiap site, the first in Simbari.

Three hours later, and sufficient time to verify that I have stated nothing incorrectly about the universal pattern of juvenile homosexuality with the boys of the "muka" stage and of the "imbota" stage, both actively soliciting as fellators and not even very modest about it. Here the "contact" pattern has not penetrated enough to abolish the pattern, and the youths not only solicit, feel for genitalia, but tactfully suggest to one that one depart in private with the favored one, the "rejected" boy tactfully walking off, leaving our carriers to their choice. There is jesting and some shame-admission attached to the whole matter with the mid-adolescents and older youths but not with the older men or younger youths and boys. The pattern of juvenile homosexual soliciting is not too unusual, but that of immediately preferring and being trained in fellatio is certainly unique. The note I have sent in abstract to the Society of Pediatric Research is the proper way to report yet "hide" the matter, for I would not particularly relish a swarm of anthropologists and homosexual adventurers in the valleys or a vigorous anti-homosexuality campaign by government or mission, and thus it has been wise to let the matter almost disappear with "contact" itself, before reporting it. I could use up all my film documenting the eye-language of the "muka" and "imbota" and even older youths beyond third stage initiation, and the feminine poses, gestures, and flirtations of these southwestern Kukukuku. This language group I reported in the abstract by the name of the groups speaking it, still uncertain as to what order to use in listing them. I also forgot to add Malaria to the list: thus, it should be Moraei-Muniri-Simbari-Malaria-Iatweia-Bulakia-Iambananye; as opposed to Aurugosa-Dumbulia-Wantekia; Barua-Marawaka-Wenabi-Usurampia-Amdei; and, probably, Imani.

The ridge on which Iwane is situated lies between two right-hand tributaries (western) of the Puruya: the Ieiwai (Iyewai) upstream and the Ndaranje downstream. The next ridge downstream has a small hamlet of Nde'd high on its ridge crest, and a large hamlet of Tchirimichigl (?) on the next ridge, and beyond lie Tchetchai and then Keikwambi grounds. Downstream from Keikwambi the first hamlet was Pulalyiai. Nangunyag was the river downstream from Keikwambi beyond which lie the hamlets of Pulalyiai and then, high on the next steep ridge, Kworakwanga which I visited on my previous trips but not on this one, since most Kworakwanga people were either here at Keikwambi with us or away in Muniri, I was told.

Across the Puruya from here lies the large village of Tchangai, upstream from it, Wiyaranga gardens, and on the next ridge downstream is Borokwangari. Upstream from Wiyananga gardens lies Indanaly and then Yo'we, and finally Warumai.

The Ailaulye creek is given as the name of the stream just below, upstream from the Keikwambi-Tchetchai ridge.

Agurio tells me that there are some old men here who will tell further legends about the people and their origin. These I hope to record, but a

heavy storm with high winds has suddenly blown up the valley, which has been covered by a high cloud cover all day, and this has devastated our camp. The winds came sidewise at us, and blew through the flimsy walls of the haus kiap and the other houses of our camp. We had a good deal of rushing about in the winds and rain to gather leaves to cover up the windward-side walls, before we were again waterproof.

I have just returned in pitch darkness by pandanus flares from the Iwane kwal angas. There are ambel angas in the village and a large kwal anga on either end. On the lower end of the village is a second small kwal anga, more like an ambel anga in size and structure, where older men tend to congregate. Agurio brought me down to get to hear and record further legends of creation by the old man of Iwane, Imagenumo. Imagenumo was a much better storyteller than Wanjenumo whom I recorded at Moraei. In fact he is marvelous, if only from the expressiveness of his voice, his inflection, and his gesture, which I have lost, of course. He sat beside me in the dark kwal anga from which all youths and boys were chased, and then admonished not to be near, and very seriously told me the tale of the creation of man, then of woman, and then of the first son whom the father insisted should be covered in bark blanket and not seen by his mother or sisters or any woman after his first initiation, and from this strict sex avoidance and segregation stems. The old man stressed this sex segregation extremely, stressing that herein lay the prime difference between the Fore (induye) and the indales (Simbari-Moraei people). He admonished me not to let youths hear the tapes, and yet was keen to have them recorded. He bemoaned the fact that our arrival, government visits by patrols, and the increasing contact of their youths with "induye" has begun to weaken the sex avoidance, which he held as sum and substance of the people of Simbari whose creation he told me of. The pride of the old man in this style of nurture, in which youths and small boys are totally kept until marriage from the eyes of the women, was the most remarkable thing, and I was very much surprised to find him so explicitly aware that this was the key to their culture and cultural individuality! The storytelling was long, for Agurio only slowly rendered the tales in Fore and Tiu, the only other of our line Agurio permitted me to bring with me, not wanting even Paretai or Undopmaina, the two dokta boi, then retold the tale in Pidgin. This double translation has lost much, but the storytelling of Imagenumo remains intact. However, I foolishly lost much of his conversation with Agurio about sex segregation, the secrecy of the legends, the importance of sex segregation to the "indales", etc. We finally gave up after a session of some two hours, and went to the kwal anga of the younger boys where Iwane, Tchetchai, and Tchangari boys were gathered--just how and why the Tchetchais and Tchangaris can be fighting in these very days with serious arrow wounds and the young "muka" and "imbota" of both mingle here freely at Iwane, I do not understand. Here we got three songs recorded, unusual in the number of youthful voices, but with louder shouting than usual, as a result.

Our camp is cold tonight, largely because of the large roomy "haus kiap" which I find is not really such at all, but rather a "haus lotu" for the James' Mission. He has never been here, of course, but Utunaga has met many Simbari and Muniri at Moraei and many Iwane came over there, and were there last year during my sojourn, for the waswas. Thus, many of the Iwane people consider themselves "waswased", and this is the idle church, they not knowing quite what to do in it or with it!

However, hunched over a Tilly lamp with a cargo box as a desk, I am writing comfortably, drinking Milo, after a very excellent meal of dehydrated French soup, canned Rock Oysters, hot pancake-like biscuits made by Anua, and crackers and peanut butter.

I have changed the batteries in the Nagra for today's work, and now, seeing the much higher speed of reverse winding and the intensity of the recording, I am wondering how much I have missed in using the previous set of batteries too long. It was still recording in the proper range, but perhaps a bit low.

As I type with a half-dozen Simbari youths ("muka" and "imbota") looking on, I stare at them for awhile as they stare at me, and looking at their elaborate nose pieces, chest and belly bands, head dresses, bark capes and huge array of kanilas, I again am aware how extremely exotic are these people among human societies, and how very special they are among all humanity.

Our medical treatments here were very extensive. We moved into them shortly after arrival, and women, children, men and youths all appeared, the boys, of course, remaining segregated from the women. We had eight cases of frank yaws, three in adult women with rather extensive lesions, two in babies with nasal and lip-mouth lesions, and three in boys ("muka") with discrete single lesions. One old woman has severe pneumonia, and several dozen of both sexes have tropical ulcers and infected sores. We have thus done a major job today in moving in, treating the sick, making photographic and tape recordings, and getting a vast record of local information. However, it is getting too chilly to keep working and this "church" which I am the first one to use, does not make anything but a very drafty abode in pouring rain and heavy winds such as have beset us since mid-afternoon. We carried with us the surplus kaukau from Keikwambi, and here a mumu was promptly presented us. We have also purchased more food and have had ample for today. Thus far we have not had food problems on the patrol. I do not know whether enough will come tomorrow for our large line. We have been brought some small, green, already fully ripe sweet bananas which go well with hot milk and sugar, and many hard, dry, green cooking bananas. Kaukau remains the staple, however.

I have managed to be left alone in the native community despite my large line, for the fuss I raised about their following and accompanying me and inundating the local hamlets at Moraei has been of much help. We have given 0.5 gm. Nivaquin to everyone this afternoon and also a half stick of tobacco to everyone in our line. Thus, things are still going smoothly and the patrol is accomplishing all I had hoped for to date. We have a day or two further sojourn before us here in the Simbari valley, and then the long bush trip--perhaps with a high altitude bush camp, perhaps through in one day, to Aurugosa and then Wantekia.

There is a bit of laplap here, on late adolescents, especially, but in general Iwane remains traditional, with traditional houses except for two "modern" small structures up on this upper end of the village, near my "church". Gardening remains traditional, and even stone axes are found frequently. I forgot to get the stone implements from the men's house at Tchetchai which I saw there the first day, but such clubs should be no trouble to find on this trip. Yobiga and Tunaga heading back to Moraei have taken the shield and its bilum, the stone club head, two stone axe heads and the stone

adze and the toy wooden axe back for me, thus I have no artifacts with me to burden our carriers with.

March 13, 1964...Iwane, Simbari

The aedes of March--and a cloud-covered, hazy, rainy day. We were held to our camp all morning by pouring rain, and afternoon by intermittent showers. From noontime on, however, it has been intermittently clear enough for much interesting photography and a good deal of work. We managed to get all the eight cases of yaws in for a further penicillin injection and all the tropical ulcers and other large sores in for further treatment. In mid-day I finally raised a great row about our failure to track down the severely debilitated Tchetchai girl with generalized yaws, and to everyone's great distress set things moving to walk to Tchimichigo'l, the nearby Tchetchai-hamlet where she was reputedly staying, and to stay the night there if the climb down and up to the hamlet took us too long. The two dokta bois, carriers and medical gear were all packed for the wet walk in the rain, with everyone grumbling for not having taken seriously my insistence that the message be sent for her yesterday and a serious effort made to find her again. Togaba, to my surprise, suddenly saw me leaving with no food, only two blankets in a ruck sac, and no other supplies, and hurriedly insisted on packing a ruck sac with "emergency" food for the night for himself to carry. I was really impressed by his zeal and loyalty. However, just as we were about to depart, Paretai, upon whom the major responsibility for the delay and failure to find the girl had lain, suddenly announced the arrival of the man from Tchetchai with a serious chronic ulcer of his foot--which looks cancerous or precancerous, already, and which is so chronic, that the neat rattan vine he uses to walk about because of his debility has already darkened with age, and the boys judge by this that he has had the ulcer for about three years! They are probably right, and although we can do something for its current breakdown with three days of antibiotics and dressings, he should come with us to Wonenara and on to Goroka for grafting, biopsy, etc., etc. and long-term treatment, for he is crippled already by the lesion.

Finally, with him here, we could learn about the girl, and she was coming right behind him with the women carrying kaukau for us. Thus she arrived, a frail, emaciated girl of hardly twelve years, carrying at least 30 pounds of kaukau in a bilum hung from her forehead. We quickly redressed her lesions, gave her more penicillin (1,200,000 units more!), and asked both the man and the child to stay here for another injection tomorrow.

In late afternoon we finally found, hiding deep in a men's house--but where he was yesterday I still do not know--Aiwo'aiwo, the boy with the arrow wound of his head from the recent fighting. He is a lad of 14 or 15, dressed in a laplap, with a swollen right zygomatic, temoral and periorbital region, and a large lesion on the right temple where the arrow stuck. Fortunately, it was a glancing blow, and not a direct perpendicular strike which might have penetrated the skull. The arrow moved deep under the scalp toward the right eye, and somewhere between its entry point (now a 1x2 cm. lesion) and the right outer canthus of the eye lies an arrow tip. The offending arrow minus the tip which lies deep in the wound was presented to me. The boy is in good health, walked up to our camp, where we have shaved his head about the lesion, cleaned up the lesion, and given him i-m procaine penicillin and 1.0 gm.

streptomycin, and he looks very well. I have been reluctant to go cutting for the arrow tip which I am not sure I can locate by palpation, for I can do so only very roughly right now. I would like to walk him with us to Wonenara, for we can surely control his infection en route. He is very reluctant to go.

Ample food was brought--kaukau and sugar cane, some cucumbers, and an occasional tomato and we have purchased it with razor blades, salt, small shilling knives and mirrors, and packs of matches, and a few small pieces of soap. The Ivaki men and Tubinaga built for themselves another house today, so the carriers are less crowded.

I spent much of the day wandering down in the village, taking pictures, in the morning in spite of the rain, and in the afternoon, largely when the drizzle of rain stopped. I took 500 feet of cine, and then, toward sunset, Aguiro, Tiu, and I again recorded continuation of the legend of creation and additions to it by Imaginumo. He told of the origin of the use of trade salt (from Barua, Marawaka, and Wantekia manufacture) and not made here, he says although previously I had thought there was some salt manufacture in Simbari. Strangely, he attributes to the eating of this reed-salt of Barua manufacture the ability to hear and use speech properly and to understand neighboring tongues. Previously, when a salt from the ash of burned leaves was used, the ancestors could not hear the speech of their neighbors, he says.

The boy of about 12 years here who is said to lack a penis, as does Yarego, is Imaginumo's son, and I ask him about this. He tells us promptly that there is an amendment to the legend which covers the cases of intersex or hermaphroditism which I have brought up. Thus, when the first woman, created from the nuts of the "mbunmunta" (also called "yamunta") tree (Fore: "Kawa") which fell into the pond bore her first child it was a girl, she tried again and bore a creature with testes bilaterally but no penis. The women looked at this and said, "No this will not do, it does not satisfy our vaginas". Then she bore a third child, a boy with an adequate penis, and the women looked and said, "This is good". "This penis will fit well into our vaginas, and satisfy us. This is what we need." Some of the intersexes keep appearing, however, and Imaginumo and the assembled adults in the kwal anga for our recording and discussion manage to recall three here in Simbari, the same three I have already on my records, and they give me further names for them, and some details about their families. They seem here and in Muniri to be sporadic, rather than clearly related, one to another. In fact, they are scattered about the Simbari valley, and not from one village.

I have not yet examined Kundawenden (Nduyagumbot'n), Imaginumo's son, for it is very embarrassing to these penis-conscious, nudity shy Kuk youths, especially with others always crowded about. I shall try to do so tomorrow, for I have decided to stay yet another day here in Simbari. We can probably get enough food again, and it will perhaps be an occasion for visiting Tchangari, although so many Tchangari youths and adults have come here to see us that it hardly seems necessary. Strangely, there are even some Borokwangari youths here, although the fighting in which Aiwo'aiwo was shot a few days ago was with Borokwangari. Again, it is probably one of those matters of strange cross-village ties and immunities. Imaginumo's son, Kundawenden, appears to be about twelve years old and has an even more frail, feminine appearance, and, if it is possible, an even more feminine demeanor



than the other small Kuk youths of eight to fourteen years. I have a few photographs of him today, to at least have some record of his appearance.

I am beset with doubts that I may have used incorrect electronic flash coupling (using the flash bulb coupling instead) when taking flash pictures of Yarego which I went to such effort to get. I hope I did not make this error, but I fear I may have.

I recorded four further singsings in the kwal anga after the stories and discussions with Imaginumo, and to my surprise two of these were from Iwane, attributed to the "ancestors", and promptly said to be dedicated to the visit of Izodumuiya Kinagiseva, the still living father of Yagasa, the luluai of Mugaiaamuti who is with me as a carrier. After singing this surprising song they sang one to his mother, Sere, the aged, still living wife of Izodumuiya. The youths and men said that long ago, before White man appeared, in the time of fighting everywhere, this Mugaiaamutada fight-leader visited Simbari and this song was dedicated to his visit. They knew that he was the father of Yagasa, the current luluai. After taking recordings of the singsing to his mother and father, we played these for Yagasa back at our camp later in the night. He had known of the existence of that to his father from hear-say at Moraei, but never had he heard it. He had not even known of that to his mother. He said he himself often visits Moraei in recent years, and even in his youth he occasionally did so, and since Okapa was founded, he has visited Keikwambi once before, but never elsewhere in Simbari or the Kuk country. His father had visited Keikwambi and here, but not elsewhere, but these visits were even before his own birth, which must be some 35 years ago, at least. Thus, we have a clear-cut story of Mugaiaamuti-Fore contacts with the Simbari Kuks long ago to add to that of Pasabe, Tiu's father, stemming from a marriage of a Fore with an Aurugosa, Kukukuku woman. Imaginumo's stories frequently refer to the "induye", usually to contrast the traditional behavior and practices of the Kukukuku peoples with those of the "induye" (Fore).

I purchased an eel trap today, somewhat less elegantly made than the fine new one I photographed down at the Puruya, belonging to Tchetchai, and somewhat waterlogged and heavy, but the successful captor of three eels already, I am told. One of the singsings we obtained today, from Borokwangari, is about the capture of an eel (Pidgin "mario") in such a trap. Yesterday we recorded a singsing from on the same theme.

Koiye and the boys keep chasing the Kukukuku youths from my large house whenever they can get a chance, and when they come in and gather, it is quite true that things are very likely to disappear, however, the major problem is the intense attention they demand, and get, and the jealousy this provokes in my younger boys, especially Koiye. Tonight, when many new arrivals from Tchangari had come in full finery and had crowded into the house to watch me type, to listen to the recorded tapes, and to simply see what went on, Koiye mumbled disagreeably at their presence and then, while later shouted in Fore to Meiwa to chase them forth, which Meiwa did by attributing the order to me. I overheard both sufficiently to know what had gone on, and reprimanded Koiye severely, and have chased him from the house. He is very angry and sulking, and has gone to sleep in the haus kuk, the first time of the trip that he has not been sleeping in my house. Again, however, I have had to make the point, or suffer complete inundation by the carrier line and the boys. I have made it sufficiently clear on this trip to now enjoy some freedom from them in the

villages, during recording and during work with the local people, and I feel the disagreeable effort it took was well taken!! Koiye, however, is faced with a more severe problem, with his immense loyalty and dedication to me threatened by these fauning, demanding, flirtatious youths all who are far beyond him in their wiles and ways, far more seductive in their methods, and far more forthright in their direct pressures for attention and far more subtle in other matters.

The decision to remain here one day more has only been made this evening, but I am much in favor of it, and hope things work out well. A clear day to dry the trails would help our trip, but if it only brings us to another day of rain for our departure, it is woeful. I still have much unfinished work here, however, and thus need the further day.

A wooden mace-like club, three stones ( one axe, one adze, and one drilled circular club stone) have been brought to me today, each purchased for a shilling.

Many drawings were made here by the local boys this morning, during the rain. The "church" is ample in size for a crowd of boys to draw pictures, whereas the small house in Keikwambi would not permit them to enter. I was mistaken when I thought that Iwane had no view of the Papuan plain yesterday--it was clouded over. It does have, but being lower than Keikwambi, the view is less extensive, and the horizon shows the final foothills of the ranges just silhouetted against the plain, whereas at Keikwambi the plain itself can be discerned.

There are two Wantekia visitors who will go back with us across the range. The trip which I have made in the past is a full day and we shall be lucky to make it in one day. I am prepared to camp in the bush, but high altitude camps can be a real problem. We must not forget the leech (mite) repellent this time!!

When Koiye sent word in that he would not work in the house tomorrow and had "moved out" completely, I jokingly shouted back to him to help me get a Simbari youth to replace him tomorrow. Undopmaina, sitting beside me and ever sensitive and perceptive and gentle, chided me immediately to stop, saying that Koiye was only a "little mad" and that the matter was a small matter, and that such talk would hurt him severely and make it "big". How wonderful are these people, how knowingly perceptive, how verbally precise, how emotionally attuned to the significance of every moment! Dick, under similar circumstances a month ago, kept his mouth shut, said nothing, and did naught to put my petty quarrel with Koiye in proper perspective, whereas Undopmaina, speaking out explicitly, and implying nothing!!!, explicitly states the exact problem and its need of cautious resolution!

March 14, 1964...Iwane, Simbari

The continued sojourn here has already been worth it in the first hours of our work day. I have managed to get family histories on many of the congenital absence of penis cases, and also to discover a fifth living case, the seventh Kukukuku case, this one from Malari. Thus, we have Muniri-Simbari-Malari all linked in the syndrome! I have also managed to

examine Kundawenden (Nduyagumbot'n) thoroughly and take photographs. He has a large 2 X 1.5 X 1.5 cm. testis on the right which is down in a scrotal fold and on the left a smaller 1.5 X 1.0 X 1.0 testis at the external inguinal ring which descends into a scrotal fold. It may (??) be associated with an indirect inguinal hernia, but this is not easily ascertained. I could not feel an impulse but felt a silky fold in the canal suggesting such a hernia.

There is a small skin flap over the urethral orifice which is situated in a depressed mucous membrane covered diamond, behind which is a normal perineum without palpable corpora. Anus appears normal. The undescended right testis (or retracted) causes a disproportionately right-sided predominance to the genitalia, with an asymmetry of the scrotal ("labia-like") folds.

The story that one of the cases of this syndrome, Kualai'o, who has now changed his name to Inowiawe'numo and is married at Kundorokwangari down the Simbari valley, was reared a girl and later in mid or late adolescence a small penis--very small--became evident and he was married as a man, is different from the early recognition of sex which the testes have caused in the other cases. His wife is said to have just borne a small girl child, attributed to his "small penis".

Imaginumo knows of the deceased male adult pseudohermaphrodite of Yo'ye Muniri, Avaginde, who is said to have also married as an adult and ?? had children. He calls him a "brother" but they are of different clans and parents.

Mid-afternoon

We have made the trip to Tchangai and back, crossing the Yewai creek in our descent and then crossing the Puruya on a precarious bridge of three spans between huge boulders. These spans were made of logs bound together with rattan, and the river below each span was treacherous and not swimmable. However, we got over and back without trouble, and made the trip in probably only an hour each way. The village was nearly deserted, with the youths almost all with us on our trip, and only some half dozen women, perhaps 8-12 small children, and half-dozen adult men. We found only one sick child with a large spleen, swollen abdomen, fever, no adenopathy and no severe anemia and no abdominal tenderness. I do not know what he had, but we could see him only this brief visit, I gave him 1,200,000 units of i-m procaine penicillin and 0.6 gm of i-m streptomycin.

The few people in the village were very friendly. Here on a narrow, kunai-covered ridge just above Tchangai, the kiap, Jeff Booth made camp and received his air drop of food for his huge cargo line. Mine is not much smaller, but we are self-sufficient in that we carry all that we need for the circuit and have enough from the gardens thus far for our own group, with the people anxious to sell food.

The lower part of the Tchangai consists of four decaying "ambel angas", two of which are obviously still inhabited, one further may be and the fourth is not. In one we found the "longlong" man whose singing and cries were heard across the valley this morning. He was in the house alone. One of the boys asked him to come out. His grimacing and poses suggested the village idiot of Old Russia, but the people insist that he speaks well,

understands well, and at times is very rational, but that since youth--but not since boyhood--he has been "longlong". (Moraei: "mburambura". Fore: "tsokore kina" or "aibo yagarai" I am now told of another Fore term: "deigikina", for the longlong men. He came forth gesticulating, often turning his back on us, and although much of his behaviour suggested embarrassment and timidity before the audience of me and the whole group of boys, he still put on his act of dancing, grimacing, picking up flowers and grass to decorate himself, pulling down fences etc. for me and the cinema camera. I felt beastly encouraging him, but the people appear to have been used to this for years and years, handle him like a pet animal, and he seems to obey their admonitions and shouts. Kura'mogol is the subject's name. Some of the older men date his illness for only about the past decade. They tell me that when he was first initiated with Iwo'o of Morandugai, he was well and normal as other boys. This helps guessing at his age--at least over fifty.

Of all the youths here, the most intriguing to me has been a brazen, brash, and effeminate, very intelligent and perceptive youth of perhaps 13--even 14 years--of age, named Yamaiko (Mother: Kogut'nduwe and Father: Iwogut'numo, both dead) from Tchangai, but staying here now at Iwane for our entire sojourn.

The boy with the temporal arrow wound has improved immensely on high doses of penicillin and streptomycin parentally, and we have loaded him astronomically with antibiotics this evening, for it appears he will not accompany us to Wonenara and he still has an arrow tip somewhere in his temporo-frontal region, which I think I can palpate. Edema and supuration have almost completely subsided, and he is up and about.

I find to my surprise, a true Kukukuku name for a camera: "chimulambagita" (derivation: probably from eye--"chimunta").

For the series of current days: i.e. day before yesterday, yesterday, today, tomorrow, and the day after tomorrow, etc. the Moraei-Simbaris give me the following:

+5...tongwalallyi

+4...allalyi

+3...tamunji

+2...alallyi

+1...mbi'a'e

0...anungo

-1...tchira

-2...awena

-3...motnungwo or mbotnungwo

-4..."tambugano"--this means "that is all" and is NOT the name for four days previous to today!!! This needs verification, for even the informants (Aiwanji and Agurio) argue a bit in trying to get it straight. They now, in rechecking make my +4 and +5 into -4 and -5, respectively.

I find that the Iatwia, the group south of Malari, is usually pronounced with an extra syllable, as Iat'ai'wia, and the "t" is really a double glottal stop! Thus, it could be spelled Ya'ai'wi'a! Without this awkward form, I shall use: Iataiwi. My group now becomes: "Moraei-Muniri-Simbari-Malari-Iataiwi-Bulakia-Iambananye".

I have been working here with at least two dozen local "lopmpopi" and "imbota" (very few late adolescents, still unmarried, admit to being "itmangwe") crowded into the house. We got sufficient kaukau for the line this afternoon without difficulty and for handsome payment of a four shilling knife per large billum, I purchased another stack for cooking tonight for the trail tomorrow. The line is thus very happy, and there is much shouting, horse play and rivalry this evening as I try to work. It is certainly good that a good portion of our line is "indales"--especially Moraeis.

The discoveries of today lead me to revise my "paper" on congenital absence of a penis. One of the adults (at Kudorokwangari, Inowiawenumo or Kualai'o) is said to have late in life developed a "very small" penis, thus he was recognized as a male, and has married and now, this year, "worked" his first child, a baby girl!! This means that one has hypoplasia rather than "absence", but in examining Kundawenden carefully today, I could detect no sign of a penis at all, only a skin flap above where it should be located. With his right testis already in mid-pubertal (or late, early pubertal) enlargement, he is probably 12-13 years old, and if he is going to develop a detectable penis, it will have to be soon.

In documenting families, I find that recently dead adults, especially men, have heavily tabooed names, and the people will not call these names, explaining that the man has just recently died, and that is sufficient reason for not calling his name!! Paretai states that in the first year or so his spirit may come back and "visit" the living, thus they do not want his name called.

This final day at Iwane has been immensely successful and had I not stayed, most of the value of the Simbari sojourn would have been missed. I found two stone clubs, well hafted, at Tchangai, one further wooden club (I already have two from Iwane), and two further stone blades. Thus, I am carrying quite a horde of artifacts with me tomorrow and I shall have the usual problems with shipping them out from Wonenara.

March 15, 1964...Tchieliellogoro,Auruoga

We are here, after nine to ten hours of trail. We broke camp at Iwane by 5 A.M. with the whole line on the trail before sufficient light had come for adequate walking vision. We left with cloudy but dry weather, only the trail surface slippery from yesterday night's rain, which was light and limited. We have arrived on a cool, clear afternoon but very exhausted. The time of our arrival is a guess, but most think it is about 3 p.m. and since we had no significant rest nor break in the whole trip, this is a full ten hours of trail! The trip can be made in six-eight hours without load, I suppose, but we had two problems. About an hour after we left Iwane it began to rain and for the next several hours we had rain, sometimes pouring, always moderate to heavy, and only toward noon hour did it stop completely. Thereafter we had a clear and beautiful day and the trail dried out a bit and we began to dry off our wrinkled, water-logged hands and feet and soaked clothing. The further added strenuous feature of the day, was a failure to take the main trail down toward the Puruya and then directly up to the ridge which climbs out of the Simbari Valley to the pass. Instead we had Ngu'tmei and Yaruko from Tchangai as guides, and they were none too sure of the track. We ended up taking high

trails through two small hamlets: Andum (with three ambel angas and one kwal anga) and Nolambie (with two ambel angas and one kwal anga), both now deserted, and only occasionally visited by Iwane people. We then dropped to and crossed the Andumunga, and then climbed steeply through gardens to also deserted Wame (where there were two ambel angas of typical style, and three of the bark-walled, leaf-roofed hut style. ("kwavanga" is used for the "typical" Kuk house with kunai roof and bee-hive shape: "ng'up'borabi" is the bark walled and gabled roof made usually of kunai and bark, sometimes with wild bamboo leaves ("yauli'ga"). Wame is a temporary village of Iwane people, now not occupied. The doors were all boarded up, and there were no fires in the houses.

After leaving Wame we climbed high, but eventually found ourselves on kapul-hunting trails and garoka trails in the rain forest, and leaving these we finally ran out of trail. Our guides knew where they were, but explained that from here on there was no trail, and we cut bush for a good one to two hours of hard going before we reached the stable trail which we could have been on all the time. Just how much harder this was than the route we could have taken, I do not know. However, the boys enjoyed the bush cutting, carved a wide and substantial trail through the forest, cursing the local Kuks as "cuscuses" and "cassowaries", but cutting down a good hundred or more large trees, tree-ferns, pandanus trees and other large trees to make our track. It was a chance to fight off the rain, and its misery, and by the time we were through the rain had stopped. Much of the early part of the trail was over felled trees or dead and fallen trees, and sometimes these were many meters above the ground, making the passage very dangerous and precarious. I am fortunate to have made it unscathed, but I used the hands of those before and after me on the trail most of the time to assist me. Only at one great gully where a huge tree bridges a ravine which must be ten meters deep below the tree did I wisely "chicken out" and descend down the muddy side to the bottom and up the far side. Our two Tchangari boys appear to be with us for the rest of the trip and with a bit of urging we could have had a dozen. The Fore were already pressuring me to let them bring with them a half dozen small boys, some to stay at Waieti or Wagarori, Agakamatasas with them. I discouraged this, for their choices were of questionable wisdom. Yaruko has been on previous patrols with me, and this 13-14 year old lad is probably destined for Fore adoption, clearly a favorite with Tiu and the others. Ng'ut'mei is clearly "my work", he having hung about me fauningly since my arrival in Iwane, and having even visited Keikwambi to see us while we were there.

Last night Yaruko, Ng'ut'mei and Yemaiko all stayed in my house with perhaps a full dozen of the Moraei Kukukuku boys with me, as well as Koiye. Our cargo boys divide up clearly into separate "induye" and "indales" houses, and whenever possible, the Fore divide into Purosas, Mugaiautis, Agakamatasas, Aworosas, and Ivakis, as they now have done here, where the government "permanent campsite" serves almost as a haus kiap. They fear the poisonous death adder (Fore: "ma"; Moraei: "yau'unan'ye") which lurks in the lower parts of the Lamari, Azana and Watgamuwa, especially in old kunai buildings with overgrown grass about them, such as our current camp. Thus I had everyone empty out the kunai floor coverings in the houses, and replace them with new kunai. We have found no snakes, and we are probably a bit high above the valley for them.

As we climbed high above Wame, Ng'ut'mei (Nung'ut'mei) pointed out to me a mountain rising to our right and said, "chiga Mbu'ye", which means the "hill of Mbu'ye". This spontaneous pointing out of interesting, and to them, significant landmarks and telling me their names is done with a real interest in being informants, and intellectual awareness of my interest in the prominent features of their environmental geography. Along the trail the Kuks never fail to point out interesting bird, animal, and plant life, especially those which are of significance to them in the bush, usually as foods. They never pass a tall, wild, edible, pandanus without staring at it with awe, and if they spot ripe fruit, they discuss it at length. Food birds and birds whose plumage they like always interest them, and they regularly stop and watch them, longingly following their flight or watch them in the treetops. Today the Moraei Kuks pointed out to me a leafy shrub a meter high deep in the rain forest with a deeply serrated leaf the underside of which was very pale, almost white. This, I gather, they eat together with native salt. They believe that this keeps their "skin clean"! It is called "pangub'ta" by Moraeis and "panguta" by Amdeis.

We must have passed a mile of low 15-35 cm. high fern or pandanus frond fences along the trailside as we climbed out of the Simbari valley, which were each equipped with small gates and a noose-like trap for catching "rats" and small ground-walking birds. There must have been a hundred or more such traps along our steep trail. We also passed high in the rain forest a noose trap for birds in the well-like accumulation of water in a tree-hole where rain water collected and birds apparently come to drink. Undopmaina tells me on the high ridge where there is little water, the water accumulated in the tree hollow was a unique drinking place for long-tailed bird or Paradise, and that the noose-trap we saw there was for these prized birds. We passed five bower bird nests used for their special dances; these circular dance grounds with their ornamented central "pole" would certainly have attracted the Freudian's analysis had it been a human construction.

Undopmaina is essentially a wonderfully tender medical worker. He is the first to avoid laughing and the near serious tumbles of the others, he admonishes the others to be careful, and when they are injured at all he is seriously pained himself. He is gentle in his ministrations to the sick, conscientious, and kind. Paretai has little of this, and little of Undopmaina's ability with the sick, sympathy for them, or interest in them. Furthermore, he has also about him a trait preserved from his boyhood of seeing wonderful stories in nature, much like the nature lore of the Western world. Thus, today as we descended through the rain toward the Andumunga River, with the gardens of Wame rising steeply in spotty cloud cover across from us, he stopped and pointed out the white cockatoos eating in the gardens...quietly and gentle yet excitedly and with a wonderful sense of mirth and story-telling he said: "Yu luk, no gut ologetta koki em i stilim kaikai blong kanaka"....."kanaka em i no stap lukautim gaten blong em, na koki em is save stilim kaikai blong ol. Luk, wonpella em i stap lukaut man i no kum; udapella em i kaikai planti". "Wunpella i stap wasman long divai, udapella em i go daun kaikai; orait, udapellaem i fulup pinis, emi save chenj (change)." These nature observations, anthropomorphized tales, and gentle humorous appreciation of nature about him are particularly characteristic of Undopmaina, who is a most remarkable boy.

High on the ridge we found a site where Auruoga (Aurugosa) people had planted in a mucky-soil the "muniri" orchids which they had collected high on the trees. It was the first time I had seen a planting of these orchids. The boys insist that they multiply greatly in this fashion. Our Moraei Kuks stole a good deal from this garden inspite of my admonitions not to...

High up the ridge rising from Simbari, but a good way before the final crest, we came to the site where in 1957 we cut many trees to obtain a view down to the valley to see where we were. Tiu and I both recognized it. Airai and Togaba and a few of the smaller boys cleared another three large trees more from this site, increasing the view yet further. I wonder if I shall ever live to see this vast view into Simbari once again and to cut the view-site still wider! There is much room for improvement.

The climb up from Simbari is fully four-fifths of the trip, while the final descent down to Tchiellellogoro (I have been careful to get all the syllables this time!!) is much the shorter part of the trip.

We found the village virtually empty, only a few children and one adult man, ailing with a severe cough. We had approached it quietly, far ahead of our carrier line, and were actually in the kwal anga site, looking over the fence around an ambel anga at the children before anyone was aware of our arrival. The people have accepted us cheerfully, and gone about collecting food for us vigorously. We have had enough sugar cane and kumu and kaukau for our whole line brought in spite of our late arrival, and we have a supply for tomorrow already on hand.

Later in the night:

Undopmaina and I have taken the Tilly lamp to the hamlet above our camp. The older part of the hamlet is largely decayed but several old houses including one kwal anga are in use. We found only four in the large old lower kwal anga, one boy of about twelve and two youths and one older man. In the second kwal anga further up the ridge, were seven people, including only one boy of about ten, several youths int he late teens, and two men. These small numbers, besides a few married men in the ambel angas, were all there were in the large village, and it seems that we have already seen most of the women and girls when food was brought to us. This small group has served us very well this afternoon.

March 15, 1964...Auruoga, Tcieliellogoro

It rained much of the night, but the morning is clear and fine. We have dressed all the many small sores and cuts of our carrier line and the boys, and have taken care of the half-dozen sores and two respiratory infections in the village. I am still confused by the large size of the village, and its small population. There is no evidence that people have fled from our arrival, for the houses are litle used and boarded closed, and many in great decay. Those who are not here have not been here for a long while! Just below our camp is a flattened oval singsing ground, fenced with a 30 cm. high fence of shrubs, and made about a month ago, it appears, for an initiation ceremony of "imbota".



The language here is a sudden and complete change. Although the Moraeis from pride insist they can understand it and that it is only slightly different from their own, they have great difficulty getting anything understood, and the vocabulary although related, is widely divergent. The Barua-Amdei language which Undopmaina's group speaks is also widely divergent, but close enough for Undopmaina to make himself understood very well, better than the Moraei, using only what little Wantekia-language he has picked up from brief contact with it at Wonenara, he having never been here before in the Dumbulia-Auruoga-Wantekia valley.

I have just made a thorough tour of Tchieliellogoro, counted and mapped 23 women's houses and two large men's houses with three additional small men's houses beside the upper large men's house. The village is heavily stockaded with fencing over six feet high and overgrown with very tall (6-10 feet high) grasses, hiding many of the houses from view until one enters directly through to the inner enclosure. Almost every house is fenced in nearly completely.

Below the upper part of the village, which is spread out a long distance along the ridge, lie two small garden hamlets: Iuwongopuro with a men's house and two women's houses, and Tchuwomu with two small men's houses and two women's houses. These lie near each other and are relatively new.

The people here, in response to my requests for interesting stone weapons and wooden clubs or shields reply that the kiap has collected them all and broken and burned them... a frequent administrative procedure during "control". A good deal more laplap is worn here than in most of Simbari, but most adult men have belt bones and "kanilas"!

I have not found much to take cinema of, nor anything to record as yet, and only two of the Auruoga youths have drawn pictures, while my carriers are busily at work drawing all morning.

The villages down the valley are those we visited in 1957: Ureba, Chemogo, and Igopidji, and a new large high-ridge village of Chegami. Ureba is the one and only Dumbulia village, and Chemogo, Igopidji, and Chegami and Tchieliellogoro are of the Auruoga group (which the Moraeis and Fores call Auruosa or Aurugosa).

Up the valley the following Wantekia villages are on this side of the Waguwa river: Chegut'ma, Warigwa (Yogogabi), and Kaajinyava, and across the river: Pinji (upstream) and Anji (downstream). These are all Wantekia group. Finally, Niri below Anji, is further downstream from Anji almost opposite here, is of the Wenabi group.

Late afternoon:

A quiet day of work and study, punctuated by a few minor excitements. I have made an early morning tour of the village above us, and after plotting out every one of the 23 women's houses, two large and four small men's houses, and visiting two small subsidiary garden hamlets in the valley, I have returned and drawn a sketch plan of the hamlet. We had a visit of the luluai from Niri, Wenyabi (Wenabi) across the Waguwa from us in mid-afternoon, and then the Auruoga Kuks from Chegami, and on the high ridge adjacent to us (downstreamwards), with many women and boys bringing food. They are

apparently to stay here in the kwal angas this evening, and thus there will be a more interesting population here, and I shall visit the men's houses again tonight, perhaps with a tape recorder.

We had food brought in in good quantities for the small number here, but our group, with new Simbari hangers-on, is some 80 strong, and if it keeps growing we shall be a veritable army. I am not adverse to dragging many of them along to Wonenara as a sight-seeing venture, for without the patrol most would not go, certainly not most of the small children with us. Thus, the circuit through the Kuk, Awa, and Fore back to the Kuk will be very, very worth while for the Moraeis-Muniris-Simbaris as is this circuit to Wonenara and back to the Fore with me. It is this that prompts me to keep them, when I only need some 25 from here on in!!! However, we were a bit short when I first distributed food today, and the carriers who have borne the heaviest loads grumbled at the number of "hangers-on" and urged me to dump them. Since the grumble was from the hard-working Fore, and the hangers-on are, as might be suspected, largely Kukukuku, the "indales" have been in turn grumbling that they will all pick up and leave tomorrow and want some encouragement and urging and prompting to stay on... which for them is a workless treat and vacation!! How typical, and as Bobby has pointed out, how feminine.

Later in the day, after the grumbling about the the scanty rations, and while I was already buying more food brought in by the Chegami people, ready to supplement the ration well tomorrow morning, Koiye came to tell me that a huge bilum of kaukau had been purchased right from under his nose by the cargo carriers. I had had enough of competition with my own group for the artifacts, bird feathers and things I myself want on my own patrols, and when it came to cross-directed purchases of foods, using what I scale out to them to out-bid us in getting food for them themselves, I was very chagrined and quickly ordered the purchase cancelled and the bilum brought back. There was a fuss, and I sent out Koiye, Tiu, Undopmaina to see to it. When I finally came out and raised a further fuss myself, the boys were very embarrassed, and old Tubinaga, Wanevi's father, ran out carrying the big bilum of kaukau, returned it to the woman, taking the chain of girigiri he had overpaid for it, and we brought it from her for two packs of matches and a pile of salt. The boys were obviously embarrassed for it was aged, senior-citizen Tubinaga who had out-bid us and snatched the bag, and I am usually so defferential and so respectful to him that I myself was embarrassed by my fuss. Tiu summed it all up well: "Mipella manki mipella save fasun blong patrol; tasol oldpella lapun em i gat hungri na fret i no gat nup kaikai, na em i no save fasun blong wokabaut!" Nothing could have been more kindly and eloquently stated, and the embarrassed reluctance of the boys to raise a fuss and carry out my instructions was very, very amply explained. I should have been more embarrassed than they were themselves.

As I write five--no, now seven--beautifully decorated rather newly initiated "imbota" (only the language is changed and they do not use the term here!!) have come in and are seated close to me, with new large kanilas, heavy chest bands of girigiri and kumukumu shells, new nose pieces and thick chest and belly bands of woven orchid fiber. They have all arrived from Chegami, where I hope to visit tomorrow.

Airai is a problem...an overgrown hulk of a youthful adolescent in a large man's frame, he remains interested in horseplay and attention and is too

big and husky for it. He has always been a bit like the Morris boys, unsure of his strength and rash and unrestrained in its use, and more likely to injure others in horseplay than any of the other Kuk boys who are, as a rule, very gentle. Pabi is a bit like him now, not earlier. Tchowe, Uwele and Pomunji and Injuriwambio are excellent examples of unparalleled gentleness. Airai being difficult to restrain and lacking judgement and moderation, is better left without provocation of the horseplay he loves to engage in, and yet so ignoring him is to very clearly cast him out of the relationships he most seeks, and which the smaller, gentler, more restrained youths enjoy. I thus feel awkward with him always. Just now he has tried, as do all the boys, to chase away the curious, wide-eyed group of Chegami youngsters who want to crowd in and just look at my typing and our camp house, and who, in so doing, lose their timidity a bit and, may possibly let us record singsings etc. later in the kwal anga. Thus, I have had to once again step on this understandable jealousy of my boys, and it pains me to do it. Fortunately, Airai is rather thick-skinned, and my admonition and reprimand hardly phase him--at least outwardly.--And now there are 8.

I have retyped the three ABSTRACTS, rewriting them in the process, and although these revised versions will surely arrive too late for Marion to get any changes into the "Abstracts and Program". If they are accepted, these revised versions will at least be a help in later publication and in preparing any text I might use for publication. I have also started to work on expanded longer versions of the final papers for presentation.

....late at night:

I have just discovered a very disheartening thing: I have been recording all the music using the AUTOMATIC rather than the Hi-Fi position of the Nagra-III, thus ruining the music recordings. This is okay, but probably not the best, for all the long stories, legends, messages to Mbagintao, and linguistic records I have made, but for the singsings it is really bad. I just slowly and stupidly awakened to the matter in hearing the playbacks, and suddenly realizing that for music any automatic dampening of intensity is intolerable. Thus, the last three recordings of the entire tape--full at the "kwal anga" in the lower part of Tchieleillogoro were recorded with the Hi-Fi instead of the Automatic, and finally I have a decent recording. I am very, very disheartened, but since the linguistic material and the information in the singsings and about them is a big part of the value, they are not worthless records, and since they cannot be replaced, we will have to settle for them..... but the error is very, very discouraging, I still have four tapes left--but some ten are finished with at least half the material singsings, on the Kukukuku section alone, on the Fore section in Agakamatasa, I must have similarly ruined a half-dozen tapes. It is really fortunate that so much of the effort has been on legends and stories wherein the Hi-Fi might have been more animated, but could well have been no better for our purposes. I recalled Dick saying that he usually switched to Automatic, and until now never thought out that he was talking about complex conversations, not music, of course!!

March 17, 1964....Tchieliellogoro, Auruoga

I am still very disturbed to have ruined the Hi-Fi possibility of all the singing recordings at Agakamatasa, Moraei, Simbari, but knowing this now, I should do better with what little tape remains. If the singing tonight at the Tchieliellogoro "kwal anga" is as good as last night, I shall scrap the tape of last night and do it all in Hi-Fi-recording and have a good start with Auruoga, at least. In cinema, I may have been overexposing all along, for I have been making very severe allowances for overcast days, shade, dark skins, etc., never getting above f 5.6 with either professional Ektachrome Commercial or with Kodachrome II to which I have now changed. I did forget again to remove #85 filters from lenses when I used three reels of Kodachrome II at Tchangai, but now, back to Kodachrome II lenses I have done so, so these are the only three reels partially "ruined". I trust by special techniques, we can save the Tchangai reels, for they include the study of the "longlong" man!

This morning about a dozen carriers and boys, including Injuriwambio, Togaba, and Undopmaina and Agurio, and I set out early for Chegami with the cine camera, the medical supplies and a bit of food, which I did not use. We made the long descent and ascent in just over an hour, and then made a slow thorough tour of the entire ridge-village of which I made a sketch plan. There were 17 women's houses, 16 of them between the two "kwal anga" sites, and on the upper end of the village there was a large "kwal anga" with a small second one. Beyond these two was one further woman's house. The steep ridge is so narrow that there was hardly room for more than a "single-file" of houses down its entire length, and the village is strung out along over 100 meters of the ridge. Every women's house but a group of three down at the lower end, is fully fenced in a separate enclosure.

We found no one seriously sick and only two infants with sores needing parental antibiotic treatment. We dressed a dozen odd small sores, and gave penicillin injections to the four small children, and then, after taking further cinema of the village, set off for the arduous return, which again was a trip of somewhat over an hour. Far below the village of Chegami the Wonenara kiap has erected another camp, which must be only two to three carrier hours away from this one, at the most. At least it avoids bringing his carrier line all the way up to the very high Chegami ridge. Beyond Chegami, Igopidgi has remained a major Auruoga village beyond a forested ridge, and further down the valley lies Chemogo. Quanyimogo, the hill-top ridge village we visited in 1957 which was then largely deserted, is now gone, but gardens are still on the slopes below the ridge. The Chegami people are apparently the same as those who previously lived in Quanyimogo. They apparently like the summit-ridge sites, and I agree with them!

We took a different track down from Chegami than that we ascended by, and passed through a small three house (one kwal anga) garden hamlet called Namanagawori.

All day we have had an entourage of five to seven of the nine "kawatnyera" I have seen about our camp--mostly from Chegami--all wonderfully decorated with orchid fiber chest and belly bands, shell chest ornaments, Job's tears beads, and new "kanilas" and bark capes. They are every bit as feminine as previously, but more restrained in their approach to me and the carriers than on our past visits to this valley, and already apparently "embarrassed" by civilized contact. However, a few clearly indicate that the

pattern of genital fondling and homosexuality has not virtually disappeared as it has, in overt form, at least, in Moraei.

Late today the Chegami women and a few from Tchieliellogoro have brought in just about enough food for our huge line, so we are most fortunate. We have had a good deal of trading in bird of paradise plumes, and old Tubinaga seems to have cornered three, paying shirts, trousers, and axes for them, having wisely brought all trade with him. I have helped Undopmaina buy the best double plume of the long-tailed bird I have seen for a large laplap plus a knife. His purchase and the two beautiful head bands Tiu has purchased of parrot feathers are the two finest purchases of our trip, but I have myself remained totally outside of the bird-feather market, for these "feather merchant deals" have always, in the past, been the cause of trouble between me and the carriers and boys. If I can overpay the two--Tiu and Undopmaina--and reward them amply before I leave and thus snatch their finds while still pleasing them, I shall try to do so. But I am not really greedy for them as I once was. Whereas the artifacts and carvings are overvalued back in the States, the plumes and feathers are undervalued and underappreciated and are best left here where they belong and where they are fully understood and appreciated. Worst of all, however, is the fact that the native sophistication has NOT brought about a decreased demand for them, and thus, with guns someday coming, I fear the birds are doomed to full extinction, although the danger is not immediate. Injuriwambio is ill with fever and chills today. I have him on Auromycin, but I do not know what he has. He made the trip to Chegami while ill.

We should have been in a sorry state on this patrol, with any less medicine than the huge supply I brought. There has been a great demand on it by both the local populations and by our "line".

The fencing of gardens here is very excellent, with upright poles holding between two rows of these "columns" a stack of horizontal poles, either bamboo or solid wood. The fences are tightly lashed and far more neatly made than are garden fences in the Fore or even in Moraei-Simbari.

We have had a good rest here, I have seen all I could hope to on a brief, crowded return visit to Auruoga, and I am satisfied. There is no point in returning again without a long sojourn contemplated. Fighting has just about been abandoned in the past two years. One of the lads squatting beside my typewriter has had his father killed about two years ago, but the Wonenara kiap has sent his killer off to jail on the coast, they tell us. In response to my plea for weapons, stone axe blades, etc., they repeatedly insist that all have been thrown away, burned or broken, for the kiap insisted this be done. I have bought a miserable shield and one stone blade hardly worth carrying. What cloth is here is predominantly in a small group of late teen-ager's dress--those who have been off to work at Wonenara--but the boys up to about fifteen are almost free of any change in their traditional dress as are the women and a few of the old men.

At Chegami there were many women in mourning, with mourning bands and tassals over their chests, with mud smeared faces and bodies, and one with mourning shell strings hanging over her face. This woman had a small pig on a leash--Chimbu young maiden-style--and she kept this pig with her, cuddling it, warming her chest on it, walking with it on leash beside her, during the whole

morning. Late in the day she came with a big load of kaukau to our camp, having carried it the whole way from Chegami gardens with the pig still with her on the leash. Another of the women in mourning has two whole small rodents hanging from her neck tassals, over her sternum, xiphoid and upper epinastrium. These I have photographed.

There is sex avoidance here, but not as extreme as in old Moraei-Muniri-Simbari. The boys do not stay near the women, they cover themselves up and rush through the women's part of the hamlet, and yet, when only some 15-30 meters off, stand facing them without much embarrassment or "cover".

All day the youths have crowded about us as they now do in my house as I type. A half-dozen or more have drawn pictures today, although they were most reluctant to start. Two older boys who yesterday appeared in laplaps are today in the full traditional dress of the "itmangwe", with bones at their belt, stacks of very huge shell bands on their chests, and the special shell-nose piece of the "rib" of the kumukumu shell. I have almost exhausted my still 35 mm. film, and thus am now restricting myself to cinema for awhile. I have documented their dress well in cinema, but the material in cinema is so hard to use in publication and study that I am very sorry to have no more still film on hand. If this patrol's record does get back safely, however, it will represent, a vast addition to my Kukukuku data. It is now dusk and very little food is likely to come in now. After the large pile of kaukau brought in by the Chegami women, a few loads of kumu, sugar cane, pitpit and corn and taro have come in--in small amounts--and we should not do badly now.

The local luluai is a small, quiet, unassuming man who is very friendly and efficient, and I am very grateful to him for his help. He and his wife have personally been very helpful. In the village he has a house adjacent to the large upper kwal anga, which is of part braided-bamboo "untraditional" design. This is the start of the "change", and he is probably the forward looking leader of it. It is a dreadful anthropological shame, and a loss to humanity of one of the most colorful cultures to decorate it, but these orchids of culture cannot survive on the artificial nurturing soil of civilization. To leave them totally alone, to do nothing for their ills, illnesses, to not offer them civilized payment for their wares, their garden produce, and to not introduce to them new crops, new tools, new ways, and to expand their horizons by opening communication and stopping warfare, quelling their fears of each other and widening their world is the only way to "preserve" their cultures. We cannot cure their yaws and ulcers, save their dying children, remove their arrows and treat their wounds without coming to them. We cannot come to them without bringing ourselves and our life into their horizon and to then refuse their request to see the outer worlds, or even a bit beyond their current horizon, with us is inhuman. Thus, I cannot agree with those who would come and study them, observe them, and especially those who want to "help" or change them in any way (including to stop warfare, murder, fear, superstition, famine or pestilence) and who would yet "leave them as they were, primitive and picturesque". This is an insult to their human aspirations and intelligence and will never do. By coming we commit ourselves to the change and are agents of it. The change disturbs us for we know better than they do how pallid and barren and how unsatisfying the fruits of civilization can be at times.

I look at the deep meaning-transmitting eyes of the proud youths squatting about me in full traditional regalia, sure of themselves, full of pride in their abilities, self-knowledge, and accomplishment, and filled with a self-assured certainty of their ability to cope with the world and people in it. I am appalled at the change to uncertainty, doubt, humbleness and subservience which is approaching. Proud and sensitive, perceptive and tactful seduction will be replaced by unctuous pandering. Passion and lust filled with zest for life, a love of sex and sensuality, and pride in their efficient and gentle handling of their own bodies and that of others will be replaced by new shames and new misgivings. Unawakened hopes and desires and accompanying disappointments are on their threshold, and with steel blades, laplap, matches, mirrors, and trade salt already replacing a proud tradition of trade, capture, or theft by greedy desire. The region will not be the same for long, I fear.

March 18, 1964...Tchieliellogoro, Auruoga

I returned from the lower "kwal anga" with Undopmaina and Agurio a bit chagrinned after having recorded but a few songs, for instead of the combined Tchieliellogoro and Chegami group I found there yesterday, I found only the lower hamlet people of this group we are staying with and a few visitors. They did come half-hearted and singing, but neither was their effort the enthusiasm of yesterday evening nor was the group large enough for a first-class performance. I eventually got them to get more youths down from the upper "kwal anga", but the singing was little better, so I gave up, mumbling that I would probably stay another day and try tomorrow. Back at camp everything was quiet for awhile, until suddenly I heard a wild rush of the carriers from the camp, cascading down the hill. Many of the boys, with their bilums or blankets, rushed into my house, and I immediately knew that something had frightened them, probably some talk of attack by the local people. I assumed that Adjetmaga who had been with us in the hamlet had exaggerated my peevishness with the unenthusiastic singers, and said something to the carriers that implied that the Auruogas were angry with us. There was thus, a good deal of shouting in our camp, Tiu and others angry at Adjetmaga for "spreading rumors", but others equally sure we would soon be killed, and I staid the panic by being rather severe with them, and explaining to Tiu that everything was friendly and quiet above. Soon he came in to tell me the Luluai of Auruoga had arrived with many of the youths to stage a really good singsing for me here in the camp. Fearing that if we stayed on another day his group could not supply adequate food. I thus went out to find a most friendly and enthusiastic reception by the Tchieliellogoro boys and youths, and the few visiting Chegamis, and a larger total group than we had had in the "kwal anga". We assembled in one of the cargo boi houses and I recorded as they sang a half-dozen songs with mounting enthusiasm and improving performance as we went along, it finally got to be rather good. I gave the luluai a knife as a gift. His name is Lumunteregenena, and he looks about 30 years old. He has a charming son of about four years who hangs onto my hand much of the time: Tereigiriwa.

The singsing slowly calmed my carriers and I have since been joking with them that they panicked not from an attack of arrows but of song. They are slow to smile. The shouting in the upper village which was to assemble the youths to come down for singing they had mistaken for other purposes. This is clear that this is unsettled country and not yet really safe and secure, and the carriers know it.

Late in the night Agurio, Adjetmaga, and the dozen of the Moraeis came in and offered to return tomorrow via Simbari, since "there is not enough food and not enough trade material to buy food for us all". I sensed that they were looking for sympathy and renewed invitation to stay on, and slowly gave it to them, suggesting that they could go on to Wonenara, and back via Aurubunkara, Owenia, Tainoraba with the major part of the Fore line and from Mobutasa, Awarosa and Agakamatasa on they would be in "home ground" and with friends. I would stay with the line to Tainoraba--perhaps see it safely through Amoraba, trusting to Mobutasa to be friendly as usual. This they decided was a good idea, and they are all staying. I am really foolish to have not taken advantage of this chance to "dump" 20 of our group... the least-needed 20! However, to have done so would have been to weaken my relationship and the loyalty I have from the Moraei-Simbari group, and I sense that there is a good deal of hurt pride in their offer to leave, for the "induye" have openly stated that they are "worthless hangers on". I chalk up this circuit to "education" of those I shall most often depend upon in the whole Wonenara region. It will be self-assuring to have such a large group of my closest associates (Moraei-Simbari-Muniri and Agakamatasa, Awarosa, Ketabi, Mugaiauti, Ivaki) well-familiar with all these tracks and terrains and people. The large number of small boys in our group--a couple of dozen-- is all to the good, for it is this group that most needs to know these areas.

Like family members, these "indales" are no servants, and they are not to be pushed about...they demand pampering, special privilege, and expect and manage to receive more than their share whether or not they lift a hand to help. As family members resent love and loyalty that is dependent on behavior or conformity to someone's whims, so do these close friends resent any implication that their reward or my attitude to them should be contingent upon what work they do. Once they know it is not, then, and only then, will they work well and loyally--but even then, only when they feel like it!!

With two dozen armed Wantekia men and youths surrounding me I type outside my house at our new Wantekia valley, at the headwaters of the Waguwaga river. The camp and village are on a high ridge between two tributaries, the Tchaimbara (upstream) and the Ipaga (downstream). In the valleys below us fields of reed for salt manufacture are growing and several houses for salt processing are in the valleys near the fields. Auruoga made no salt and Dumbulia makes none either; they say their soil is not adequate. Marshy river basin land is apparently needed.

Up the valley from us on a high ridge is the village of Poinporangaboro, and downstream, on a higher ridge than we are, lies Tchegat'ma.

Mid-day, after a trip to the salt manufacturing site and throughout the village:

There are many men here with light skins, almost "red". Of the fourteen people here in my house watching me type, two have red-skinned complexions and I have seen others during our "tour". The trip here was impressive enough to use almost 300 feet of cine film, and I have now used over 300 feet more on the salt manufacture "leaching out" stage. The work was in full progress, and except for low intensity light and I guessed at exposures--2.8 to 1.9--I found an ideal situation for cinema recording. The reed for salt manufacture is grown in special gardens, usually in low swamp river-bottom land, and these



are well fenced in and tended. When it is harvested it is dried in special houses for over a month, Undopmaina tells me, and then large fires are built to burn the dried reed. The wood is piled within a very huge stack of the reed, stacked about the inner-wood fire. The fire not only consumes the reed, but keeps hot and smouldering for days in the heart of the huge pile of ash it leaves. This is covered with a small house, and left for a month or more, after which the wood ash is discarded. The whitish ash of the reed is then piled ????

The local luluai, Kabitcheraibin, is a powerfully built man who is apparently the real leader of the group, and he has been of great help. His people have brought us the most ample supply of food of our entire patrol, with so much kaukau that we have enough already for tomorrow, and enough sugar cane, and kumu, and corn and even cucumbers to give a ration of each to everyone in our group. Finally, the region is rich in pandanus nuts, and they have brought us great quantities of garoka, at reasonable prices, and everyone in our entire line has had an ample share.

With ample food purchased for matches, razor blades, soap, and salt (nothing else used), and three traditional wooden clubs and one rather plain shield also purchased, we have had a busy afternoon after my morning of photography of the salt manufacture. The local village I have not visited thoroughly, but on a quick circuit through it, there is one dominating, huge kwal anga, one of the largest I have seen, and perhaps twice the diameter of many others we have visited. There are also four smaller kwal angas, and thus far I have spotted fourteen "ambel angas". In one cluster of four ambel angas in the lower part of the village, all four in one fenced-in enclosure, the boys identify one of the four as a kwal anga, to my surprise. It is perhaps for the men married to the women in the three ambel angas. Exactly twelve adult men, and twelve youths and boys are here in my house as I type. This is most of the crowd that sat in the huge kwal anga with me above except for a few small boys and a few old men. If this group will all assemble for singing tonight, I might get a very good session for recording. It is obvious that we shall be out of both film and tape at Wonenara, and whether I can get any in by plane from Goroka is very problematical.

.....after sunset

Our carrier line is surprisingly well fed and satisfied tonight, and the local populace is apparently very pleased with my arrival, with our food purchases, and my purchases of artifacts. The large supply of pandanus nuts has made everyone more satisfied. I have begun to sketch out the visible streams and hamlets: upstream above the Tchauimbara hamlet of Kwatchinjaba and up the valley from it a village of Kamukujaba. Coming down from the Tcetgat'ma heights to the Ipaga river is the Nararaia stream. All these I have in a rough sketch map, and tomorrow I shall try to complete the sketch of the Wagamuwa headwaters.

Salt making is in full progress and tonight, the dozens of long bamboo tubes filled with the dissolved salt will be started on the long process of evaporation in the ovens in the evaporation house. Banana leaves are used over the clay oven compartments to hold the dessicated salts when the water is evaporated. I hope that I can get photographs of this too, for this is a most remarkable opportunity, to have arrived when all is in full swing. My weapon

collection has now mounted to seven wooden clubs of various shapes, one a real work of art; two stone clubs; and two shields--besides those I sent back from Simbari and Moraei. I have not yet succeeded in buying a salt package from these salt manufacturers, and salt has been an excellent trade item with them. I guess they know the difference between their high potassium-calcium content salt and NaCl which we bring them. However, I really want a Wantekia valley salt package, and shall keep trying. I shall not know until the current processing is over whether they are in short supply, or whether I have asked the wrong people, whether they do not like to sell outside their established trade contacts, or are afraid I shall not pay well enough.

Today the Wantekia youths set about drawing pictures with real enthusiasm after an initial fear of the paper and pencils. In this side of the valley I have never previously collected drawings, and it was certainly the first approach to pencil and paper for all of them!! With the house loaded with dozens of drawers and observers all afternoon, it is now filled with their fleas and lice and I am scratching terribly.

This has certainly been a most remarkable patrol thus far, for it has been very profitable and leisurely, and all that I could hope to accomplish on patrol has been done. If it were not for my dreadful errors in recording music by "Automatic" damping and of leaving the No.85 filter on the Bolex with Kodachrome II film at Tchangai, Simbari, I would be totally pleased with things as they have gone thus far. If we can only get to Wonenara and through the Awa back to the Fore, with the major part of the line in good order, it shall be a really triumphant venture.

.....late at night

Just returned from the high and huge "kwal anga" of Waroriogo where I have recorded a full tape of Wantekia singsings on HiFi Record, with some 30-40 boys and men in the house. Nothing as good and strange as the odd singsings I recorded at Auruogo--or misrecorded on "Automatic"--but plenty of "presence" as in the second Auruogo tape recorded properly on HiFi. Now, with two full tapes on HiFi and all the "presence" and fidelity needed to impress and interest fans and friends of the frequencies, I am less worried than I was about the Automatic recorded music. For my major interest, musicological and anthropological analysis, I believe all the information possibly needed is there and for some kind of musicological study, the "damped" record may be preferable. I am not really interested in "entertainment tapes", and hearing the loud shouting fidelity of the new records, I think I could study the music of the damped records more easily and thoroughly, I will be most interested in the opinion of some real musicologists and composers, rather than HiFi fans. Thus, my spirits are up a bit with respect to the previous recordings. I shall continue to record in HiFi for music, but shall certainly not erase the Moraei-Simbari record. In fact, since those records, we have not obtained the full detailed story and history of the singsings as we were obtaining in those earlier recordings. The natives either do not know or are reluctant to be explicit and detailed. Here at Wantekia the two singsings, aimed at preparation for fights with Barua and Marawaka, were by far the best sung.

As we went up to the village "kwal anga" by Tilly lamp-light in a drizzle, trying to avoid deep mud and slippery slopes, Undopmaina cautioned us all against clinging low to the wooden "tanket" growing decorative fencing

along the path, for the local population, coming from the bush of the steep slopes below the village after defecating, wipe their anus on these tankets (at "anus level") as is apparent from their appearance and smell.

On current schedule we should make Wonenara with our trade items for buying food just about exhausted. Matches have been the best trade item, and fortunately I suspected this and brought enough. Salt is nearly gone, but may hold out for the few days more. Just how much replacement I can get from Wonenara remains to be seen.

Now, certainly after 9 P.M., left alone for the first time in the entire day, I sit in the big camp house typing, the hiss of the Tilly lamp and only the roar of the Wagamuwa coming up to me from the valley. It is a cool--almost cold--and wonderful atmosphere, and this first bit of solitude of the entire day is precious. The camp is unusually quiet with almost everyone sleeping already.

March 19, 1964...Waroriogo, Wantekia

After recording the singsing in the "kwal anga" in Waroriogo above last night I returned to a sleeping camp, wrote a bit, and then read Faulkner's "The Bear", and other "old" Faulkner for a new look with distant perspective in one of the least touched valleys in New Guinea. We are in the valley, but on a high perch above it. I have been down to the salt manufacture site, and photographed as best I could in dreadful shadows and shade, the oven and five of ten basins filled now with banana leaves, in which the bamboo-cylinders of salt solution have been slowly emptied for evaporative drying. I was brought a large salt "loaf" this morning, and not recognizing it without its conventional wrapping, I unwrapped the banana "bark" wrapping, expecting to find the tightly-packed package underneath, but instead came directly upon the salt cake. This loaf, or cake, of salt obviously takes its shape from the basin in which it is evaporated and dried in the special oven. This package was thus a new one, and the white salt was obviously fresh. I asked the old owner to pack it up conventionally in the special bark-strip wrapping (Wantekia: "gauwela") from the "gauwela" tree, and later in the day he brought it. He would accept nothing but an axe for it, so I finally paid with one of our few axes to him.

The reed used for salt manufacture is locally called "tsaminje" and the salt itself "sala". The term "tsaminje" is used for the pitpit itself and when it is burned to an ash it is called "sal kwangata"; the evaporation oven is called "sal tukulala", while the basins for evaporation are called "sal tchindata", and the extraction apparatus is called "sal parangija". The hut in which the salt is evaporated is simply called "sal anga" and herein the fire was started last night; only five of the ten "sal tchindata" in the house are being used. These five had been lined with banana leaves and filled with extract from the bamboo cylinders and now were slowly evaporating. The fire is kept burning day and night for a full month to accomplish the full evaporation. It was, however, impossible to do good cinema or still photography within the dark house. My electronic flash apparatus has exhausted its charge and my flash unit was not working. Thus, I have not had a chance to finish the documentation as I would have liked to. However, from without we got pictures of the huge, heavy, cylindrical packages of reed ash

being carried up to the extraction site, and of the fires of the evaporation oven being tended.

I made a longtour of the village and climbed high onto the slopes above the village, with Undopmaina and a group of boys from the local village and from Chagat'ma, and with the luluai, and then returned for the leisurely afternoon of reading. More food was brought in than we could use and afford to purchase, so I left it, managing to discourage their bringing more tactfully by slowly reducing payments and stating that we were very grateful, but had all we could use. Everyone has now eaten plenty of corn, pitpit, kumu, cooking bananas, and far too many pandanus nuts; and kaukau is in ample supply. Thus, we have done extremely well here and the local populace seems happy and satisfied, with our visit. There was not, however, much medical work. We had a dozen sores to treat and one respiratory infection in an old man, and a few cases of impetigo and scabies. Many women with illness or sores may have been in "hiding", although women have come to our camp and stayed around during food purchases, without embarrassment and have been very friendly in the village sites I have visited I did not realize that there was a long extension of the village above the first huge "kwai anga" which I visited twice yesterday. Today we have seen all there is to see and the village has doubled its size for me. To have spent the day largely reading further in Faulkner's short stories has been a bit on my conscience, like wasting precious time sleeping in exciting new places. However, it is the first real return to the "Western world" I have made in over a month, and the first exposure to English--other than my own--in over a month except for Dick Hornabrook's brief visit over three weeks ago!

The Wenyabis (Wenabis) from Niri, who visited us today, remained armed with strung bows during their whole visit to our camp. The cargo boys noticed it more than I did, and did not like it. They had many sores which we treated, but although they sought treatment, they raised more of a fuss about injections--i.e. acting frightened and putting up a fuss about them--than I have usually seen in highland natives. It was part of an act, however, for they really wanted them. There were many in the group wearing laplaps...more than we have seen in this whole Wantekia area.

March 20, 1964...Nira(Niri) and Wenyabi (Wenabi)

The local people certainly say Nira, not Niri, and Wenyabi, not Wenabi. We broke camp at about 6 A.M. and arrived here at about 9:30-10:00 A.M. to find a camp in advanced decay, overgrown, cargo boi houses caving in, roofs leaking, and debris filling the camp houses. It is an old camp of the Wonenara kiap's and the Nira people have not done a thing to maintain it, as is to be expected. We worked rapidly and in about an hour from our arrival, the camp was cleaned, the overgrown shrubs and grass cut, the dried and collapsed houses burned, and standing houses repaired and cleaned out. We are now in a fairly good camp with a minimum of effort, and are very near the village. But the village too is old and decaying and has been replaced--the Karamui kiap who had been at Wonenara telling me--by the new village at a rather long distance from here, much nearer to Wonenara, and over the ranges.

I have always been confused in the past that the Agamuseis are said always to be fighting with the Wantekias, when no Wantekias occupy land

adjacent to them. It turns out that these statements refer to the Nira people, who DO occupy the upper Aziana across and above them, and it is the Nira-Wenyabis that they have been fighting, several of whom they have murdered.

A round stone club has been brought to me, but the price of five shillings asked is exorbitant by local standards, and I have refused it. The local people have had more Wonenara experience with Europeans than others in this Wagamuwa valley and are, as a result, more demanding in a strangely civilized way. The village here is obviously being let run into complete decay, but I expect the new one is fine on the other side of the range. By coming here I have reversed the order I had first planned on: Pinji, Anji, and then Nira. Now we shall travel to Anji tomorrow and then the following day to Pinji and the next day on to Wonenara.

We had to rebuild the two log bridges of the two streams of the Wagamuwa to get here, for they were in such decay that they would not hold our cargo. At the point of crossing, the river divides into two streams about a small island, on which some reed for salt manufacture is growing! I took pictures of this.

The luluai from Waroriogo has come here with us. I have forgotten to get samples of the salt reed ash before and after extraction, and of the effluent from the extraction before evaporation. I shall ask him to get these for us and bring them to Anji tomorrow. I arrived alone a full half-hour before my boys and carrier line, surprised the villagers in their houses, and toured the village with two boys of about four and eight years, the older still uninitiated (called "kwoimarai" here, rather than "kwalai"). This older lad was chewing betel nut when I arrived and surprised him and his younger brother in an ambel anga, and they were not at all afraid and quickly and enthusiastically climbed through the rest of the village to the large "kwai anga" with me.

Yesterday I tried to purchase two necklaces made of yellow vine segments and human fingers, but in both cases the wearers did not want to sell them, referring immediately to the deceased owners of the fingers as close of kin, one was an old man with the fingers of his son, about his neck and the other was a youth with the fingers of a close friend. This friend had died of a poisonous snake bite (death adder) here in the Wagamuwa valley, while working for the kiap, cutting kunai down in the lower valley. Similarly, I had been told at Auruoga of the wife of the luluai from the Ureba village of Dumbulia, my friend, who had died of an adder bite while he was away on tour of the Lamari with the Wonenara kiap. This valley, as that of the Aziana, is filled with death adders. We have fortunately not encountered any yet on our patrol.

I have revised my sketch of Waroriogo hamlets--35 ambel angas, 9 kwai angas, two of which are the large type, and in subsidiary garden hamlets and the luluais special hamlet, another dozen or more houses! From where I type outside my camp house, I have a fine view across to Waroriogo, Poinporaboro, and Tchagat'ma, and also up to Anji and Pinji. Our camp is just below the ridge, so I must climb up to the village to look back at Auruoga and Dumbulia.

March 21, 1964....Anji, Wantekia

Only here an hour but already 100 feet of cinema of bark blanket making! I have enough of it in the Fore, but not in the Kuk. The bark blankets are called "numbai" in Moraei, and here they are called "nabuwai'a". Something I discovered was that the trimmed and cleaned bark sheet is beaten first with a wooden beater, called "kwabia" in Moraei and "ibugiria" here. Then, after a thorough beating against a beating-log (Moraei: "ivitamika" and here, "parabaiya") it is then beaten against the same log with a stone beater, called in Moraei: "achila" and here also "achila". A woman was doing the wood-beater beating out of doors while an older man was trimming the bark sheets with a steel knife, cutting off loose fibers, etc., and in an adjacent "kwal anga" a man was beating the blankets with the stone "achila". On the walls of the kwal anga fully five finished new blankets were hanging. I am trying desperately to purchase all of these, if I can, for I would really want these new blankets back in the U.S. for decorative purposes as well as ethnographic interest. The trip here from Nira (Niri, as a few Wantekia say it) was only one to two hours for the carriers, but the ascent here is rather steep and slippery. Track is good.

Wenyabi people are now living largely in Kema, a Wenyabi village recently rebuilt on the Aziana River side of the divide, rather than on this Wagamuwa side. The trail above our Nira camp climbed steeply to several wonderful knolls on the ridge from which astounding views of the whole Wagamuwa valley and beyond--even to Okapa--were open and, finally at the crest a vast view into the whole Aziana beyond to the Lamari and Okapa, Ivaki, and Urasa, and other parts of the Fore was the reward. The trail has been cleared widely, making it the best walking track of this part of the Kukukuku region. The Wenyabi people were very generous in bringing food, even wanted to sell me a pig for only the axe head of one of our two medium sized axes, but knowing that these fine medium weight axes are not available at Wonenara, I did not want to part with them, further camp construction was ahead of us. I really do need more bush knives and axes for trade purposes than I have. We hardly had enough for camp construction.

Here at Anji several men met us down the trail, we did not "surprise" them with our arrival as I had at Nira. However, although most of the youths and boys met us and began a tour of the village with us, I did not meet any of the aged big-men, until the boys told me they were in one of the smaller "kwal angas". I entered this and found the older, more important adults of the village, all seated about the fire. Lying down was the head man, my old friend of two previous visits. He embraced me warmly, rubbed noses and foreheads, and beckoned me to sit down on the sugarcane debris which forms the flooring over the limbum in most of these houses. I sat behind him as we rubbed each others' shoulders, thighs, and arms.

The pattern of homosexuality is certainly preserved, but less evident superficially. Thus, as soon as there is any privacy--and the desire for privacy is greater than it previously was--the boys, now more especially the youths of teenage (whereas it was formerly the younger boys) quickly make propositioning gestures, eye movements; the most usual "acceptance: affirmation is an upward raising of the eyes with wrinkling of the forehead. This seems to be the rather universal agreement to sexual liaison among the Kukukuku people and in many other regions of the world. There is now a great deal more caution in using it than previously, with care that none of ones agemates sees it or spots the eye interchange. At Waroriogo, while I was

jesting with the small boys ("kwoimarai") who are still with the women, and uninitiated, run about without bark capes, often with naked buttocks, and at times--although rarely--fully nude, I found them clinging about me and climbing over me at times to my easy acceptance of their jests. While hugging and carrying one of them, an older man came up, and leeringly indicated "no" ("awena"), and pointed to "kwatnye", pulling two to me hardly larger or older than the "kwoimarai" of older age (i.e. some 6-8 years old), clearly indicating that sensual and sexual play should be with these newly initiated young boys (6-7 upwards, although some are not initiated until 10-12 years of age) and not with the "kwoimarai".

The mountaintop sites up the ridge above Nira are by far the best sites I have seen in the Wagamuwa valley, and as similar as Katitikabisi in its Lamari overview as anything here. If I were living here, these would, thus far, be my choice!

There is less laplap and less "cargo-line-sophistication" here in Anji than I find in Nira. I guess the Wenyabis are among the most frequent Wonenara station workers.

Late in the day

We have made a further tour of the village; its sixteen women's houses and three men's houses, plus an odd half-dozen small shelters, make it a fairly large village. We have now found three boys aged 7, 9, and 11 so thoroughly covered with scabies and secondary impetigo that it has been a huge task washing them, dressing the open impetiginous lesions, rubbing them with benzyl benzoate and giving them parenteral antibiotics. The women are similarly covered with scabies, and a few of the adult men, but we shall never get to treating them all. The hip dance and poses necessary to getting the "mula" (called "pokwi" here, the "muniri" are called "labi") off the small boys are amazing. We have had to soap their hips, and then it is like getting a stuck ring off one's finger, with the "pokwi" rings getting stuck above the pubis at the hips are comical. My hands and whole body now smell of benzyl benzoate, and I am also itching furiously.

I offered to buy some bark capes, and overpaid so extravagantly with a pair of trousers for one and a laplap and large mirror for the other that I was besieged by dozens of them; an angry and worried carrier line begged me to buy no more. I finally purchased two more for small knives each, which is more realistic pay, and I may try to buy one or two more before leaving. These people make them, but more than they make they purchase from the Simbari region for trade salt in trade. Bird of Paradise feathers, some very beautiful, have been brought in, but they start by asking such prices as 4 pounds for the golden-red plume which we formerly bought for 2-5 shillings and can still be so purchased in Simbari-Muniri.

This morning the only seriously ill patient--the extremely severe pneumonia patient of about 35--came again, hardly able to walk, for another three injections (aqueous penicillin, streptomycin, and procaine penicillin). I gave him Aureomycin at the rate of 1.5 gm daily for tomorrow and the following day, hoping that our admonitions will succeed in preventing him from following the usual practice of dividing all medicines left among all those who ask for a pill or two. He looks better and may get by. He brought two

fine headbands, which I have purchased, but already Undopmaina has appropriated one and Agurio the other, so I have none without raising the issue of their returning my bands. Arrows, bows, such decorations of orchid fiber and Bird of Paradise and parrot feather head dresses are the major items the boys want, and whenever I get any they are so jealous that it is uncomfortable. Nothing has peeved me as much on this patrol, however, in this matter of competitive purchase as the incident in Moraei when Tarubi purchased for resale, I am sure, the two birds Dick Hornabrook had been promised. It is perhaps unfortunate that I have not brought more money--since I carry doctor boys along to clean the market of anything I might wish to purchase.

The small boy with extensive scabies who came from Anji to Nira yesterday where we treated him, ran off as soon as we had treated him, and, as I suspected, refastened his kanilas--which I should have burned--and took off the old laplap I had given him to replace them. So we found him here today, and we have finally succeeded in getting him retreated with benzyl benzoate, but not out of his kanilas. I have had better luck with the others, but they are all very, very anxious NOT to be without the frayed, dirty, louse and mite-filled under-kanilas; and to remove their "labi" or "pokwi" is unheard of.

Yesterday, leading the group of boys from Anji who came to visit us at Nira, was Mane, the Anji boy who came to Pinji and Anji with me on my last trip to Wonenara. He is working as a cargo boy at Wonenara, but is now spending a month of "leave" at his home village. He speaks good Pidgin and wears only laplap now. In the village his aged father had fallen from a tree he climbed, and is suffering with a right posterior flank, right lower rib (posterior) and thoraco-lumbar spinal injury. He can stand with sticks, can just barely walk, and has no urinary, defecatory, or sensory difficulty below the belt. I do not know what we can do other than strapping and binding him well, and urging him to wait.

Starting the blanket purchases and then stopping them has left several people angry or, at least, disgruntled, among them even my old friend the luluai whose 3 blankets I have not purchased for the enormous sum he wants in money. However, with a visit again to the village, all now seems well, and I think food will be brought to us shortly.

First stage initiates are here called: "yiwupai'a" while second stage are called "kawatnye" which is different usage than that of Moraei-Simbari-Muniri! Small boys are "kwoimarai" (a few seem to say "kaimerai", but most say clearly "kwoimerai").

Last night I returned at dusk to find no lantern yet burning, and when Koiye

"Woioipa, watchwatch!!", "Woioipa, matchessa, matchessa!" "Woioipa, sopo watchwatch!" "Woioipa, sole, sole!!", "Woioipa, naipe, liklik naipe!!"...and so the boys are mocking the unctuous, feminine, interminable begging of some of the Kukukuku youngsters of Anji today. They clung to me, begging for anything they could get, and trying their best to get commitments for anything from



matches to soap, to a small knife and then at times, asking for ridiculously generous "gifts" such as an "akis", "bussnaipe" or "trausesa". They would offer sexual contact, usually fellatio, hardly looking for any privacy for the proposition, other than the exclusion of women, and more than a few agemates. I recall now that in 1957 Anji was the village where I became very suddenly aware that fellatio and homosexuality were institutionalized and a cultural pattern, rather than individual propensities. Here this evening we went to the three "kwal angas", in the center of the village for singsing recording. On my sudden arrival at the boys house, the older lads were almost all coupled with a first-stage initiate in a "petting session", and this petting needed no more privacy than mutual petting at many an American teenaged dance. The dull light of the smouldering fire leaves the men's house almost dark, and in this dull light, without any secrecy but the privacy of darkness, the youths and near-adults pair off with the new-initiates of 8-12 and "pet". During our recording and the singing the same "petting" went on, usually taking the form of the smaller boys reaching under the "kanilas" of the older and holding and fondling their penises.

While listening to the soft, very subdued and extremely feminine voices of Undopmaina and Mane, my Anji boy from the 1960 visit to here and to Pinji and Wonenara, who is now with me again, I suddenly realize that this extremely gentle, feminine, speech and manner which makes for such excellent interpretation, medical assistance, and liaison with new and frightened native peoples, is part and parcel of the cultural tradition of homosexuality. There is no doubt that the youths of 8-12 are instructed in techniques of gentleness, are trained in and practice tenderness, and that their sexuality is not that of vigorous masochistic or sadistic physical activity and friction. With it, a certain number of the youths develop a quiet, delicate mode of expression and articulation which both Undopmaina and Mane certainly have, and this in the Western world would be thought very feminine. From Mane I discovered today that the major concern is to keep the male-male sexual liaisons a secret from the women, and as long as the women know nothing about them, there is no embarrassment. I thought there was, if other age males, adult men, or any other males after initiation should know of them. In fact, the youths are invited by fathers, adult married men, and other adults to practice sexually with visitors, and are given encouragement in their roles, rather than as much ridicule as I thought there was. This ridicule seems more when I am near the Moraei-Muniri-Simbari group of my boys, who have been themselves exposed for almost a decade now to the ridicule, jest and jibes of the Fore, for whom there is little gentle or admissible sexual enjoyment of any sort--it is all the subject of strict taboo and ribald jest when made public. Anji this evening has further taught me more about the situation and its mode of operation than I have learned elsewhere, and it is surely a mistake to imply, as I did yesterday, that the pattern" is diminished here compared to earlier Simbari-Moraei-Muniri. It is only the Nira group and perhaps the Waroriogo group that now give that suggestion, but this is now 2-3 years since Wonenara was founded and cargo lines and kiaps and missionaries have been spreading their influence!! Alone in Anji without my carriers, the pattern is that of old, and unchanged, and Mane is about as trustful and intimate an informant for me as Undopmaina; thus I am very, very well-informed.

There has been a drizzle and our crowded camp has had one house--that of lazy Moraei's--leaking badly and thus a half-dozen of the Moraeis have rushed

to join me in my house for the night. Uwele and Adjetmaga sleep under my bed sleeve, Pabi and Injuriwambio in a small "house" made of the cargo boxes, and the others scattered about the floor.

I learned again that the boy whom Jack Baker and I found dying here of advanced yaws with secondary ulcers and contractures, and whom we hauled off to Tcheiliellogoro with no little difficulty and protest, is not only recovered but living perfectly well as a late adolescent youth across the river in K . They tell me his name is

Pinji, Wantekia...March 22, 1964

I have moved into Pinji once again after less than 2 hours of wet trail from Anji. The three gulleys are discouraging, however, for one would think that the valley could be crossed with only one gully. The carriers started at about 7 am in a drizzle while the two dokta bois and I and the boys carrying the cameras went back to the village to dress and treat the many cases of severe scabies with secondary impetigo once again. We also found a very severe case of generalized impetigo in a boy of about 10 who has been hiding. Finally, Mane's old father has had a spinal injury and flank injury from a fall from a high tree and has a real kyphosis as a result with crippling; he walks only with the help of two sticks. He refuses to come to Wonenara for evacuation to a hospital and the local people refuse to carry him. He has no urinary or fecal or sensory difficulty and apparently does not have any neurological damage. Thus, I have left him, taping his back with Elastoplast.

We worked a full hour in the rain on the sick and then left for Pinji, arriving about a half-hour after our carriers who had already set up camp well. I am now typing while ten local men and youths draw pictures on top of cargo boxes in my house. I have distributed one small piece of soap to each two boys or carriers of our line, and I am now slowly catching up with work. We have already treated two boys here with severe scabies and secondary impetigo--mostly about the waist and belly-band region, and one badly injured one, but nothing more as yet.

One Anji boy has sold me a dry salt package, and thus with a freshly wrapped one now drying in the haus kuk and with the Waroriogo luluai already here with two specimens of extract from two separate bamboos, a specimen of the burned ash of the reed or cane before extraction and a specimen of the discarded extracted ash, as well as one of the gourds plugged at its base with a vine fruit called " " which acts as a filter during the extraction, with all this I now have a set of specimens worth analysis for study of the Wantekia salt production industry. Everyone tells me, including Undopmaina, that the kiap has discouraged Barua and, especially Imani, from making salt any more, telling them to switch to government salt (NaCl) and explaining that the smog produced by their salt burning endangered the airplanes arriving to the airstrip. If this is the case, it is a severe loss, for the salt industry has been a key feature of trade throughout the whole Eastern Highlands, and an economic center of Kukukuku culture. More important, it is the most detailed, complicated and well-executed technology I have seen in New Guinea, and any such developed technology should be exploited quickly, with conversion to pottery making or something similar.

The packaged salt which I thought was packed in a pandanus-frond package is not. Instead it is wrapped in the outer skin of the trunk of a banana tree and the binding rope is from the bark of a special tree called "kawikara". The banana is called "nari kurendawara"--"leaf of banana".

As our circuit to Wonenara nears completion, our supplies near exhaustion, it is quite clear that the region needed our medical patrol badly; we have not had much very severe illness, but many cases which needed medical care were in danger of becoming sources of more severe infections, if left untreated. Sores and other skin ailments remain the major problem of our trip.

Mid-day, after a change of clothes, a meal, and a sleep

Lazy today, and trying hard to get work done, by driving others to accomplishment and loafing myself. Thus, I did get Undopmaina and Paretai to treat the large number of sores and sick who eventually arrived, and also got the men and boys drawing pictures before I fell asleep. I have awakened to find one of the best collection of Kukukuku drawings I have yet obtained.

Now, the women and small children and girls have arrived with kaskas, sores and other ailments, and I must go out to sort out the sick before I can leave the work to the two dokta bois.

The Pinji people are very friendly, and I am very satisfied with our reception. Also, for the first time on the trip I have not arrived until camp was set up, and it was better done without me than with me and even my typewriter was out with paper and carbon paper in place in it for today's journal, hot water for washing and a Milo made, and the whole camp grounds cleaned, and my bed ready with blankets spread. It is best to leave it to them alone.

late at night----

With the Fore flutes blaring, and most of my cargo line Fore--some 45-50 strong--in a singsing, I type as most of the "indales" (Kukukuku) some 20-25 of them, in my line crowd about me in my house. This is our last day of a month away from "civilization"--or more than a month--and we are about to cross the range on the morrow for Wonenara, hoping to make the trip in one day.

I have just given Undopmaina a lesson in the nervous system anatomy and another on the eye, and a third on the composition of the blood; these supplement his last on the reproductive system.... but all this is woefully little tutoring for all the months he has missed from his school work for Aid Post Orderly in Goroka.

We have had a good day in Pinji, but I have also "given up" today, and not made the trip across the Wagamuwa valley to Poiporangeboro or to the Kwatchinjaba haus kiap simply because I was lazy and it is really a strenuous walk--an all day trip there and back! I sat, instead, with five small boys of Pinji and the father of the boy who almost burned to death while I was visiting here two years ago, and a group of my "indales" from Moraei-Muniri-Simbari on the high point of the Oinji mountain (Pinji

chiria)... actually "down" the ridge from our camp and the village!....overlooking the whole of Wantekia and the whole of the upper Wagamuwa valley. Watching the afternoon draw on to dusk from this vantage point, studying the shadows in the dozens of deep canyons and valleys spread out before us, some in shadow already, others catching the last glow of dying sunlight, I relaxed with three of the "kwoimarai" cuddled against me, one in my lap, and the others telling stories about the former very recent warfare in this valley. Apparently, only fairly recently, in fact after our 1957 patrol here--the Waroriogo group--the strongest of Wantekia--attacked, with the help of Simbari allies, the Pinji-Anji group. Nira Wenyabis sided, some with Waroriogo and others with Anji and Pinji. However, the Anjis and Pinjis were routed, and most of the Pinji fled to Imani beyond Barua and Wonenara. They have only returned with government semi-control!! The fighting spelled the end of two large villages below the current Pinji village and we were on our high perch looking directly over the sites of the former villages which have now been fully abandoned as a result of slaughter and defeat by the Waroriogo people who routed them. Mane, my Pidgin speaking Anji boy who is now with us, tells me that he has only been back at Anji since the government station was founded and that he did not only flee to Imani for safety, but ended up in Oraura in the Tairora North Lamari (which language he speaks) and it was there he first saw white men!!

This evening seated on a hilltop overlooking a rural scene such as few places in the world could afford...perhaps akin to some high valleys in Badakhshan or Kashmir or Nepal, I watched the changing pattern of highlights and shadows and finally returned with my entourage of Kuks to our camp for a wonderful meal.

Before eating and cleaning up (shaving, washing, etc.) I took care of another of the dozens of severe cases of impetigo secondary to scabies in a small boy of perhaps nine years. He had a particularly severe case, and was trembling and crying. I spent some time gaining his confidence and getting him sure enough of me to permit the cleaning up of the whole mess that involved his whole abdomen, lumbar region, flanks, perineum, thighs and genitalia. To get started I cut off the stinking, decaying kanilas he was wearing, but his father protested violently at any suggestion of cutting off his "pokwi", or belly bands. I tried to indicate that they were matted in scabs and crusts of scabies and adhering to his body and partly the cause of the trouble, but he was adamant. I finally called Undopmaina and acted very irate myself, telling him he cared more for a bit of custom and tradition than for the life of his son: He was embarrassed enough to concede, and I cut off the belly bands, pulling off scabs with a gush of pus and blood as a result: then with the trembling boy finally nude, devoid of his barkcape (the even temporary removal alone causing trembling and fearful anxiety, like taking pants and underpants off an American child), I managed to scrub him thoroughly with hot soap and water and finally to brush off the scabs and crusts. This was a painful procedure; but the boy cried only once, and soon was pleased and smiling with some hope for a "change" as he saw the bleeding lesions for the first time in months, surely, fully cleaned and debrided. Then we dressed him in a large girdle of "lint" after covering his lesions with achroflavin suspension and spraying the lint and lesions with a vaporized Shering spray and quickly gave him 4.0 ml. of the procaine penicillin into one buttock and 600,000 units of aqueous penicillin into the other. After all this ferocious therapy, he began to laugh, and before we were through he was smiling, hugging

me, and clinging to me, and when we finally got a new "kanila" of clean new fabrication--no easy task and necessitating commandeering one from another youth!--he was very, very happy and relieved. He was still embarrassed to be without "powki" however, and covered himself up thoroughly to go back home in his bark cape. He is the twelfth such case, perhaps one of the more severe we have seen in Anji and Pinji. Agurio and Paretai tell me that this was frequent in new initiates after they first began to wear belly bands and thick layers of kanilas in Moraei. I believe it is a louse-initiated, excoriation provoked, ailment directly attributable to the initiation dress and traditional male attire, and that scabies and impetigo once superimposed on the louse bites, scratching and constant irritation of the belly bands and kanilas, becomes a really serious problem.

A woman with a severe plantar yaws appeared and I was surprised and disturbed, for we had not seen other yaws here in Pinji. However, later a girl appeared, and she had a large typical yaws lesion on her forearm, I guessed that she came from the same house, I was right--in fact the woman's daughter!!!!...and thus the morning and afternoon passed, with medicine, as usual giving us an introduction to the culture and the most intimate insights into it.

Later this afternoon I saw the small boy, now about seven, perhaps, who two years ago nearly burned to death while I was visiting here when he rolled into the house fire in the women's house and burned his thighs, genitalia, buttocks, and belly to second and third degree. The all night trip into Wonenara and the emergency evacuation to Goroka has certainly saved his life, and he is now well and healthy. His father was very pleased, but below his perineum there is a 4-5 cm. band of scar tissue connecting both thighs, from anus and scrotum down. This needs to be cut and surgically separated and grafts used to replace it if he is ever to have normal thigh motion, and I shall discuss this promptly with Roth in Goroka. I have advised the father, and he is prepared to go with him to Wonenara again and fly to Goroka for the surgery.

At Anji, above our camp, was a peculiar structure which I soon learned was for first stage initiation ceremonies. It was a stockade-like structure of long trimmed trees planted deeply in the ground in two rows only some 6 to 8 inches apart and for a length of perhaps 4-5 meters, with two parallel rows only some 30 cm. apart. In the lane between these two rows the novices being initiated were forced to slowly file while the older boys and men thrust sticks at their legs and buttocks between the gaps of these fences, thus beating them severely as they passed. Apparently, an older youth leads the file so there is no rushing too fast ahead of him, and the structure is like a cage out of which they can neither squeeze nor climb.

Teaching modern anatomy terminology and current therapy, worrying about warfare and possible attack, treating yaws, and collecting war raid chants and singsing, and inspecting men's houses for dangerous armament which might spell trouble, distributing marbles to our carrier line, and translating Faulkner's short stories into Fore and Kukukuku, largely through Pidgin for my line... these incongruous and almost anachronistic activities are no stranger than purchasing recently used war maces, clubs, and stone axes and war clubs for bars of soap, needles, knives, and boxes of matches. Having to cater to male sex segregation more than I did to female purdah in Afghanistan, tactfully

removing genital embraces, and penis grasping fingers of small youths when they are an annoyance, purchasing a meter-high, two meter diameter mound of kaukau, corn, sugar cane, various greens and pitpits, pandanus nuts, and even native salt bars for spoonfuls of purified NaCl, matches, soap, and small knives for a carrier line, and then arguing with a father about the removal of ceremonial belly bands to try to clean and dress matted crusts of impetigo covering the trunk of his ailing son....these contrasts are all wonderful, exciting, intellectually stimulating and I do not look forward to coming out to "civilization" tomorrow even though it be from one of the most remote of all government outposts of New Guinea!! I do not miss civilization, my native speech and so-called civilized and "cultured" associates and could well go on many more months as I am...It is our need for supplies for this over-large carrier line and my need of getting most of the line back to the Okapa region that prompts the return now, not any desire or rush on my part. I am no more intellectually challenged nor stimulated at home than I have been on these weeks of patrol.

March 26, 1964...Oropina Village

In the Genatei group's homeland for the first time. There are three villages, and we are in the center one along the upper Aziana River: Yabuiara, Oropina, and Arabunkara. These three comprise all the Genatei people in the world. All villages are on the summits or high up on steep ridges which run nearly parallel down to the Aziana, and each village controls lands and ridges on each side of the Aziana. Yabuiara has recently made a fine Aziana river bridge, so fine that the men have decorated it extensively with festoons of vines and flowers, and they will not permit the women to cross, claiming that they were not supplied adequately with food by the women when they were camped down at the river building the bridge. The women must hazard the river at low water at the treacherous fordings. Oropina is entirely on the northern side ridges, and has only hunting ground and some gardens across the river. Oropina has been fighting desperately with Oweina and Kokombira at the time of the establishment of government control, but has been friendly with Pinata. Yubuiara has been a friendly ally of Oropina, while the Arabunkara has been an enemy in spite of sharing the same small language group. Thus, the Oropinas have until just recently kept most of their "line" on the ridge upstream from us, where they were one ridge further away from the Arabunkara attack. Arabunkara always has a very large line in comparison to the other two.

My interpreter is one of the only two Genateis who yet speak Pidgin. He is Imipina, a boy of about 14 whom Mert Brightwell brought as an 11-12 year old, two and a half years ago, to Okapa where he went to school for two years, finished the first grade, and lived a further year with one of the Okapa station policemen. The other boy is the assistant haus kuk for the kiap at Wonenara. They are from Yabuiara and Oropina, respectively.

Everyone has told me that Genatei is a dreadfully complex, difficult, and strange language, but I now see the Arabunkaras and hear their language and it is clearly closely related to Fore, a few minutes are enough to guess that it will be a Fore-Tairora "mixture"--i.e., a language with influences from the Fore linguistic family and also from the Tairora linguistic family. There are a few things that suggest Imani-Barua-Wenyabi-Kukukuku influences, but these are very few. I spot them mostly in the frequent terminal "o" (which

may be pronounal or a personal indicative) on names and the sound of some long names. Many more, however, are distinctly like Fore names, and there is a rather large vocabulary overlap. (kaukau is "sapa"--Fore:"isapa"--; house is "namo"--Fore "nama"; sugar is "yabi", the same as Fore, etc.etc.).

Kukukuku style bark capes are worn by the men and boys; small boys, especially, look like small Kuks but initiation brings on long bark strips braided into the hair, Fore-Awa-Tairora style wearing of shells (girgiri, kumukumu, etc.), and the boys house here is far more like a Fore "wa'e" than a "kwal anga". It is on the ground, has an earth floor covered with discarded sugar cane and although with lower roof and larger diameter than most "wa'es" I have seen, it is built like them. The unmarried boys have their own separate houses and this is rather far removed from the houses of the married men and women. The married men have two smaller men's houses. A few married men do sleep with the boys, but the separate men's house for married men and for unmarried boys is like that in the Awa. Grass skirts like the Awa and other North Lamaris, are worn longer than less "full" than the kanilas of Imani or Barua Kuks. They act and look like Highlanders from the Eastern Highlands through West New Guinea's Swart and Mulia valleys, not like Kuks. They seem even more like Fore in many respects (in sound of language, behavior, village style), than even the Awa do. We have seen only two old women in three to four hours here, but all of the men and boys, and many are now drawing pictures, some of which have very Fore-looking salamanders (called here "obwe", and in Fore "kararaba"). They wear a tight hip rope called "topon", something like the Awa and North Lamari people. It is a "penis corset", but most boys have it merely as a hip band, without any fastening of the penis.

They quickly tell me that they do not marry early like the Pinata people do. They spontaneously report that Pinata people marry off their boys as just mature youths, sometimes before their puberty. This they do not do. Awa youthful marriage of boys has been known to me, and also in Pinata. It seems clear that the Genatei here do not follow it.

I have collected blood specimens from 35 men and boys and one girl, but other females have not appeared, probably afraid of our venepunctures. The men and boys have treated it as a joke. This has probably jeopardized our food receipts, and we have barely enough food thus far for our still large line, in spite of letting off some twenty Moraeis at Wonenara. The people are still suspicious and very wary, but they are friendly. I have spent a good part of the day in the boy's house, part of the time sleeping.

We departed from Wonenara at 6:30 a.m. I was up at 5:00 a.m. after having gone to bed at 1:00 a.m.; I am not surprised that I am tired and with a slight headache. We are all very hungry, to boot--no food since last night and now only sparse rations. I shall have to ration out some rice and tinned meat unless more food is brought.

The women's houses are round, raised one to three feet some even four feet, off the ground, with a bamboo floor and a thatched conical roof, like the men's houses. They also have a very narrow door, as do men's houses, bordered by a wall on each side of upright bamboo poles. This hallway extends a meter or more into the boy's and men's houses. However, the village here is

largely made of small bark-walled, ground floored, gabled, kunai-roofed huts, hardly a meter and a half high, which are said to be temporary. This is the result of fighting and being forced to build quickly and to shift location often, and we are told that they plan now to erect permanent houses on this site. There are already a few. An aged man of the community has a large house of his own off to one side of the women's row of houses, and the boys' house and the men's house are, as is his, both higher up on the ridge than the row of women's houses. These women's houses are screened by vegetation and rather difficult to see from any distance away.

We have succeeded in getting just barely enough food. We could get by on this with an early trip to Arabunkara tomorrow morning, which is a bigger group with better gardens and perhaps a better supply of food will be brought. However, we have been lucky here to have had a friendly reception and now, with a tour of the women's houses, I have met some dozen or so women. Most are still staying away, however, and I wonder whether we shall see them. The men apologize, say they will turn up at evening, and that they will let us know. Many small children are about, not particularly afraid of us.

Over a dozen fine drawings have been made by men and boys, and five are now drawing. None of them had ever used a pencil or paper before, and had to be shown how to hold them. These are really "first attempt" pictures and very traditional. This first attempt at drawing shows much difficulty in learning how to hold a pencil in order to get it to write and learning to anchor the paper so that it does not slip beneath the pencil. All this causes much experimentation and makes these first pictures technically quite inferior, I believe, to the later ones which we should get if we stopped. But this has "paved the way" and at a future visit I should do well. Old men as well as boys are trying to draw.

The men are still with strung bows and arrows, and the bows are all ready along the "hallway" of men's and boys' houses, and there is a very definite early-stage-contact atmosphere of caution and "readiness" about the group. But there is also a very marked gentleness in the men and boys; when they hold my hand they press gently; when they stand beside me they often hug me with a very tender gentleness. There is no sign of the Kukukuku sex-avoidance, or of the distinct femininity of the boys of Barua and Imani, however.

My New Guinea sojourn is drawing to a close, but I still cannot resist delaying at every new village and group of people. I had planned to go right on through Arabunkara, but changed my plans upon arrival. Arabunkara is only about an hour of trail away. Thus, we are dragging out our trip to stay there tomorrow, but I must have these two days in the Genatei to get acquainted with them. I have done far more observing and slowly making friendly contacts than I have done photography. When we arrived all the boys and youths were still asleep or lounging, and we soon learned from Imipina, our interpreter, that they had had a singsing until daybreak and had only now gone to sleep. I hope I can get some recordings here this evening.

March 27, 1964...Arabunkara, Wonenara area

This morning I collected blood from fourteen of the girls and women without much trouble, bringing the Oropina collection to 50, which for this



small line, is highly satisfactory. The kiap estimated a total of 30 possible specimens!

The aeroplane which could not come in yesterday, apparently, has just flown overhead to Wonenara, thus evacuating, I trust, the fourteen odd specimens I have left packaged there in the ice box, but missing the thirty I had ready here last night and could have dispatched. There will surely be no further plane until Tuesday, and I will have to settle for trying to get these specimens off to the station tonight or tomorrow morning and leaving them there in the refrigerator until Tuesday's plane.

The Arabunkaras are even more timid than the Oropinas, but I now have over a dozen men and youths looking on as I type, and while I was enroute here through their village, I managed to shake hands with most of the women and children, although they first ran off. They do not know hand-shaking gestures, obviously, although the Oropinas seem to know them. All are from European derivation, I suspect. The kiap calls Oropina, Ariwini.

Very small boys of only seven or eight years, already carry betel nut in their bilums and the lime-gourd and the lime-stick as well. I have not yet seen uninitiated boys of five to seven chewing betel nut. Grass skirts are often worn behind as well as in front, but hidden under the bark cape. One man has a few scrubby Kukukuku chest bands of yellow orchid fiber, but yellow vine-stem necklaces of short internodes or segments of these vine stems are more commonly worn with girigiri shell bands and neck pendants of kumukumu shells.

Girigiri head bands are almost universal, and cassowary-feather crown-like head ornaments are almost universal in the young warriors. Many wear mirrors hung like pendants from their neck. There is a very large nasal septal hole in all boys, big enough for a boar tusk thicker than the middle-finger in most men. Boys wear plugs of bamboo or reed and older boys often already have polished stone (white) nose-pieces. Besides the nasal-septal hole most young boys already have a small hole in the tip of the nose for a sprig of grass, and many youths have also a lateral-nasal wall holes for wisps of grass, often decorated besides with a few beads of "Job's tears" or even trade beads. Black pig-greased facial cosmetic is usual, often with stripes of red paint down the forehead and nasal bridge. Long bark-stripped braided hair is universal in the post-initiates. Most men and boys wear a belt made of dried pandanus leaf with a peculiar "buckle" made in front by tricky folding of the leaf. Arm bands and foot bands are common in the men. The older boys and youths wear the "topana". The front skirt is called "inango", the reed skirt "wongo". The pandanus belt is called "togone"; the bark cape, "ipo", the bilum, "urado"; girigiri headbands, "yangi"; wide arm bands "am'mi"; and pandanus leaf low foot bands exactly like the belts but in miniature are called, also, "togone"; kumukumu neck pendants are called "yango" or "yango'a'o". Wide bark-fiber woven wrist bands are called: "nabomi"; and the bark-fibers braided into the hair, "owa-ani". Umbilicus: "oangane"; breasts "name"; penis, "akambro"; nose, "aibiante"; ear, "ago"; mouth, "atnane"; eyes, "oromu"; forehead, "enoro"; cheek, "orunang"; belly, "avara"; arm, "ei'a"; leg, "arai"; chest, "agigi"; shoulder, "ango"; testis, "arantome"; buttock, "oweni"; elbow, "enta"; hand, "ebari"; knee, "agenangoromu"; groin, "awabotang"; axilla, "abone"; head, "owa'o"; head hair, "owa-oromo"; back, "otmuyange"; lumbar region, "okome"; anus, "yaganane";

flank, "eto'one"; fingers, "ebororomu"; finger nail, "ebari"; heel, "arawango"; teeth, "owe'e"; tongue, "arabuna"; lip, "oriange"; eyelash, "oromei-ange"; thigh, "owenyano"; wrist, "nabumonange"; ankle, "okorongtangoromo"; hip, "owetnei"; sole of foot, "airaiwango"; palm, "ei'yaagatang"; chin, "owaringo"; neck ant., "owane"; neck post., "etnani"; scrotum, "arantami"; politeal space, "airainonde", antecubital space, "eiantane".

This vocabulary, which I would usually take in a notebook, I have taken rapidly from a group of assembled men and boys watching me type this journal, getting it at a very rapid speed--hardly a few minutes--and pointing to parts on a boy and having several informants carefully pronouncing. It has been so much easier than Kukukuku languages and so clearly a "highland language", that I shall be astounded if Wurm does not place it with the highland language Phyllum.

Such word-listing has been the cause for a good deal of jest and amusement, and it has served to get the group very friendly and helpful, and was well worth the interruption of this journal writing. Our translation has been restricted to that of Imipina, but without any translator the word list was essentially compiled. I shall go on later and check what I have here recorded, as well.

We have decided not to take blood specimens until food is finally brought, so as not to scare away women. Actually, after blood specimens are taken, the group is usually more friendly than ever, but those who have not yet been bled are apt to stay away. Thus, I am working at other things this morning.

The haus lain across the valley from us is called Kaundo and the one directly up from our haus kiap, Uroro. The haus lain directly at our haus kiap at Oropina was called Me'are, and the one ridge closer to Wonenara, Yebonu'mare.

I have interrupted typing to start over a dozen men and boys on drawing pictures; moving into the haus kiap, I have them all drawing about me on top of the cargo boxes. When we are without these cargo boxes en route to Menyamyait will be much, much harder to get drawings, for we shall lack flat surfaces to draw on.

----late at night

Over one hundred, or just one hundred, Genatei bloods are packed for a carrier to rush them to Wonenara tomorrow morning. Imipina's father (my translator is Imipina) from the Oropina group of hamlets is here and will take them. I have packed them well, ready for dispatch to Roy Simmons, but they will probably have to wait in an ice box in Wonenara until a plane on Tuesday. If they are not inadvertantly frozen in the ice box I shall be lucky. I have tactfully begged the kiap to keep a close watch and to dispatch them as soon as possible.

In the men's house of Me'ara hamlet above our haus kiap camp I have spent some 2-3 hours this evening breathing smoke and scratching louse and flea bites, as I recorded a full tape of Arabunkara singsings. They are songs

about pitpit, bamboo, and sugar cane, about a tree whose leaves are used in decorating themselves, about the ground of Me'ara hamlet and about the Arabunkara group in general, about the hower bird, and about a sick child. They are all slow and dainty as compared to the loud, blaring, almost shouted chants of the Kukukukus I have been recording. The interesting and subtle beginning of each song with the leader's solo becoming a duet or trio and then taken up in ever increasing amplitude by the whole assembly of singers is very interesting. The songs are also, in general, more melodious than most Eastern Highland chants I have heard before this.

It has been a very, very busy day for me and I am exhausted. Koiye has usurped my bed and Adjetmaga and Uwele are sleeping on the kunai beside it. Rarely have I had such profitable patrolling.

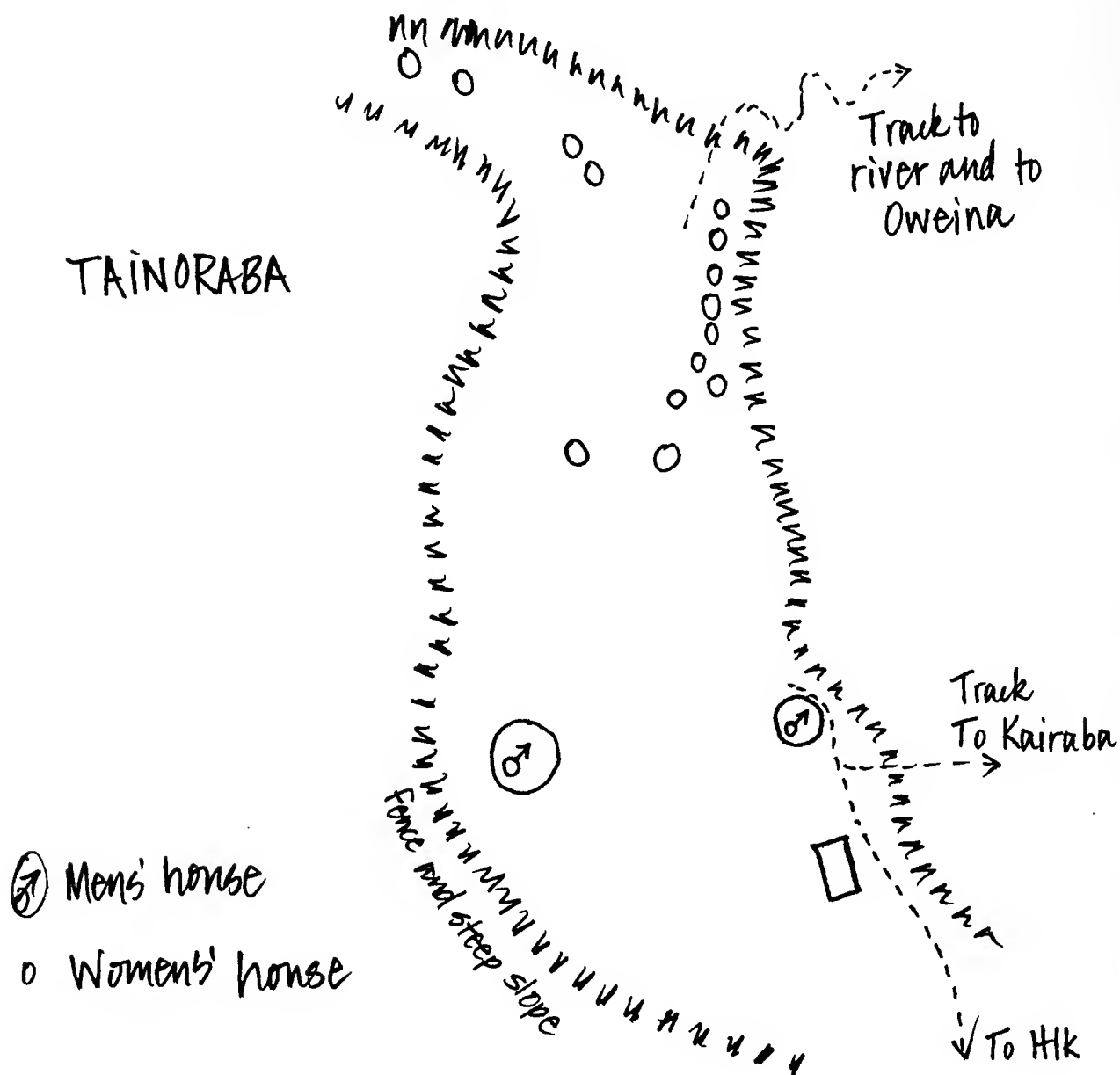
The similarities of the Genatei to the Fore continue to intrigue me. Singing is more intricate and more melodious, but otherwise somewhat like the Fore singing. Men's dress is not far from that of Fore in the past, and language has very many similarities. The women look more Fore than the men. Women's houses with floors, conical or bee-hive roofs, and raised high from the ground are very different from those of the Fore, but the men's houses are not so remarkably different. The housing is certainly more like the Awa and Pinata than other groups, and certainly more like these than any other Kuk group. Boys do tend to stay out of sight of women, have a boys' house often very far removed from the rest of the village, although the men have a married men's house usually very close to the women's houses and just above them. The avoidance of women is not as coy and not as complete as with the Western Kukukuku groups here but it is practiced by the boys here. Name taboos are certainly present. Women, particularly, dislike calling their own names, and men have much hesitation. Boys from 7 to 15, after first initiation at least, are the shyest of all in providing their names.

Many names are short and sound very Fore...others are long, have a "tch" or "j" sound in them, and most end in "o", which may be a personal indicator....and this suggests the Kuk groups and their names!

Hamlets are still built to be partly hidden, and certainly designed for defense.

March 28, 1964...Tainoraba, Awa Linguistic Group

We are here, but after a very, very exhausting trek, in fact, the worst, by far, of our trip since leaving Okapa. It is hard to decide just what has so exhausted me when I have not had anything like the collapse I had on this trek in all the rest of our patrolling. We left Arubunkara at about 6 a.m., after sending A , Imipina's father, with a letter to the kiap and the package of 101 blood specimens to be refrigerated until air dispatch from Wonenara. We then set out down the ridge, across the Nugoinenenu River which flows into the Aziana, and then over the lower shoulder of the ridge to meet the Aziana river which we then followed for several hours, on a very very difficult track, and one which continued precariously over the steep shore of the Aziana, often overhanging the waters in dangerous fashion, with slippery, insecure footing. When not "siding" dreadfully, the track dropped steeply or



climbed steeply, so that we made a very great deal of ascents and descents during the many miles we followed the right bank of the river downstream.

There had been a rather serious argument in camp yesterday, for the cargo carriers had decided that they wanted to descend the river, follow it, and finally ascend to the Lamari-Aziana divide and drop to Tainoraba, rather than crossing high above Arubunkara, arriving at Oweina (Oweinia) and then proceeding to Tainoraba the next day. This decision was contrary to the advice of my Genatei and my Kokombira trunim-toks who know the tracks, and I thus was reluctant to follow my carriers' advice, for I suspect strongly that they did not want to visit Oweina for fear of that group and because of the recent Oweina-Waisara fighting. Undopmaina kept urging me to go first to Oweina, and the carriers got very angry at him. Tiu finally explained to me that they would rather I returned to Oweina with the few boys who stayed with me, and they would go on to Mobutasa and Awarosa with our spare cargo. As we were discussing this, and Tiu had a very belligerent argument, shouting insults at each other from different houses. Tiu teased his adversary with Fore taunts, taunting him that he was crying, and the replies got ever more heated. This was the first time that I had heard a Fore argument in such taunting jibes and shouts. The boys did not jest nor smile, but treated it seriously, and Undopmaina and others tried to make quiet remarks which would deter them from further argument.

As a result, I let the carriers decide this morning, and we have taken the long, difficult track down the Aziana which brought us near 10 a.m. only facing the huge kunai slope up almost to the Divide. We had to descend from our point of outlook almost to the level of the Aziana again and then climb in the hot sun through the high kunai which was sufficiently tall to leave a moist, slippery track under it. I led the ascent, but after making the hilltop some 2/3 way up the ridge, I was fully exhausted, and from then on it was a matter of short ascents and long rests before I could go on. I finally got to the end of the kunai, near the end of our line, and found it very difficult to make the final short forest stretch of trail to the very summit. The extreme exertion of the several thousands of feet of hot kunai ascent at fast speed had ruined me for the rest of the day, and I had to struggle desperately to keep going through the forest, down the gradual descent to the Lamari-side kunai slopes, and then, when we stood high above the Lamari, viewing Tainoraba, the final descent to the streams and ascent to the haus kiap on a high ridge was just too much. I took a full additional hour resting and making short journeys, to arrive about an hour behind the carrier line. Undopmaina and many others were also exhausted and a bit ill from the trail, but I was more exhausted than any of the others.

It has taken several hours of rest, and continuous eating--for I had left on an empty stomach, as usual, and did not eat a thing until our arrival--(3 p.m. for the carriers and 4 p.m. for me) to recover. The steep ascent might not have been so bad, taken more slowly, and, above all, starting fresh, instead of already exhausted by the 4 hour or longer treacherous trail along the Aziana. We shall all have to stay here tomorrow to recover. The major part of the Tainoraba group is absent, said to be making yam gardens down near the Lamari, but others say they are away at Irakeia, and I have still further conflicting stories. Of the few remaining, there are many ill, and we have made an evening visit to Tainorape to give 6 procaine penicillin injections pending a more thorough survey tomorrow. The few here have brought a rather

good supply of kaukau, corn, pitpit, cucumbers, and sugar cane--but far from enough. I have two turnim toks from Wonenara, plus several Moraei's still with us, and thus we number some 55-60, and our cargo would be enough for a line of only some 15-20! I have thus rationed tinned meat and rice, so that we are well-fed today, and I wonder whether we shall be well supplied tomorrow. Three of my Awarosa carriers can speak Awa: Igikabara, Kaima, and Abosava. There are both Wanitabi and Ketabi "lines" here at Tainoraba, and these three translators have all lived at Mobutasa for some time, thus learning Awa. Although several Mobutasa women are at Awarosa, none of these three men have had an Awa mother.

Tainorabas who are here include five of the boys who hung closely about me throughout my last visit and slept here in my house. Three are now with fairly new "tamponka" (called by the Oropinas "topon"), with painted and elaborately decorated bark cloths hanging over the genitalia and posteriorly and with the traditional triangular-patterned bark belt. I will try hard to purchase one of these tomorrow. I have purchased only an arrow thus far--for a razor blade.

At Oropina I purchased nothing but at Arubunkara I finally succeeded to purchase for a four shilling knife, a new bark-fiber net-bag of small dimensions (some 6 X 10 cm) called "panguro" which is carried for decoration as well as for sorcery or "charm" purpose, with cuscus fur inside and other "tokens" of good hunting and trapping luck. In the one I purchased, the owner opened the bilum part and removed three polished seeds of a tree, called "unemi" (Moraei: "mayele", Fore: "kage", Amdei: "manyele") and also one piece of quartz--both carried for luck in hunting cuscus. The cuscus fur was left in for me, covered up in some leaf. There are pendants of cuscus testes and the brown nuts of a tree hanging from flying fox bones.

The Tainoraba people have gardens over on the Aziana side; some high up on the kunai slopes and others down, near the Aziana river. I had never previously thought Tainoraba had grounds and gardens between Agamusei and the Genatei villages. The Genatei villages I had learned of only through the Pinatas, their friends.

I am planning to pay off the entire cargo line and to return to Wonenara via Oweina, Pinata and Kokombira, but this may be a bit rash, for it is not a place where one can count on getting carriers. However, we shall see what we can line up here tomorrow. I want only five boys with me at Wonenara; Undopmaina, Koiye, Injuriwambio, Anua and Tiu--for others I cannot handle when we are remote from Okapa and need air transport to return.

I have just played some Arubunkara singsings here to demonstrate the Nagra III and hope that tomorrow I can record a Tainaraba singsing.

The earlier decisions of linguistic boundaries here are apparently just what have now been definitively determined. Thus, Oweina and Waisara have one unique language. The Genateis (Yabuiara, Oropina and Arubunkara) have another, Pinata and Kokombira speak a Tairora dialect, which is exclusive to the two. Oraura and Habi'ina speak yet another, closely related, Tairora dialect. Kokombiras and Pinatas can manage with all versions of Tairora. The Genatei and the Oweina-Waisara languages are not intelligible to the Pinatas-Kokombiras, who rely upon some of each group who speak Tairora. The

Bairas and Nombairas are also Tairoras whom the Pinatas-Kokombiras can understand, but they claim they turnim the toktok. Awa is totally different from all of these.

A busy day of organizing my notes, paper work, sorting cargo for return to Okapa and to Agakamatasa, and, finally organizing our small cargo for our return to Wonenara. I must also plan to pay the cargo carriers tomorrow.

This year's New Guinea sojourn has been very productive and valuable, but it will only be upon my return to NIH that the full value can be ascertained.

March 30, 1964...Oweina (Owenta), Oweina-Waisara Linguistic Group

Here with only 9 boys on my line! Tiu, Agurio, Koiye and Unjuriwambio, Togaba and Koka (Agusi), Undopmaina, and the two turnim toks from Wonenara, Imipina for Genatei and Tabé for Pinata-Kokombira brand of Tairora. Here in Oweina-Waisara Linguistic Group we have no translator, but fortunately we have found a youth of about 12-13 who has been for a few months to Okapa, as a manki for the Okapa dokta boi from Kawaina, across the Lamari in the Auyana.

With Agurio going back to Moraei with the kiap and some dozen Moraei-Simbari-Muniri boys I left with him at Wonenara, and with the turnim toks staying there, I have but 6 bois in my line. Furthermore, our cargo is reduced to only one cargo box and 7 ruck sacs, and a few small items like the axes, bushknives, one box of papers and venules, etc. We can manage it with 10 carriers! These we had a dreadful time getting from Tainoraba and Kairaba, with some two hours of early morning argument and discussion preceeding the first gesture to actually carry for us. The main argument is the same as that of the past two days. The Oweinas have killed a pig and a chicken, and warfare is on between the groups. The Tainorabas claim the Oweinas do not heed the Wonenara kiap, still always carry strung bows and arrows, while the kiap has burned their own bows, arrows and shields--this they claim as they all parade about carrying strung bows and handfulls of fighting arrows! I arrived early at the men's houses, found the men all asleep or just arising, and it was of interest that all the penis-corsets were hanging from the center pole of the house, the men wearing only the very brief pubic covering hanging from the bark belt, and some of the young boys--here some of only 8-10 are already in adult atire with penis corsets or binders worn and all other adult garb, and they singsing about a boy of 7 or 8 married already to an older woman, and those of 10-12 are considered marriagable!--wearing nothing at all. The hair dress or girigiri and tambu and the crest of cassowary feathers are all taken off in sleep and refastened in the morning. The juggling and jigging into the "tampoka", or penis binders in the morning, which are pulled tightly up on the hips, is a strange and comic sight to see.

The Genatei, Awa, Oweina-Waisara, and Konkonbira-Pinata Tairora all wear them. Here they are called "weinanda" while the bark belt with a small spray of strands hanging down over the pubis is called an "ninimposa".

I managed to slowly arouse the men and then listen to complaints that if they carried cargo to Oweina they would all be killed, that the Oweinas would not listen to me, and would all be heavily armed. Finally, we agreed that

they should carry to the high ridge overlooking Oweina, and there be paid and return while we went down to Oweina to get carriers to bring the cargo down. This awkward agreement took several hours to negotiate, but finally we were off, and once off, three Kairabas joined us on the ridge below their village, one including the youth of about 17 who can speak Pidgin after a sojourn of several months at Wonenara as a cargo boi. Finally, even the luluai came along, carrying one of our ruck sacs. The boys with me had already taken a good part of the smaller cargo themselves, such as Injuriwambio carrying the typewriter as well as his own ruck sac, until we met the Kairabas, and I gave it to one of them. We had an easy track over the first kunai ridge and then a grueling, exhausting climb to the Divide, from where we had a fine view of the whole North Lamari, to beyond Oraura and Himarata toward the new Obura Patrol Post. The huge canyon-gorge of the Lamari below Pinata was wonderfully seen, had to stop at the crest and cry out for carriers, with distant shouts returning suggesting we come down ourselves. The Tainorabas had all, in the meanwhile, strung their bows, and not wanting the two groups to confront each other armed, I paid them off, and sent Tabe and Undopmaina down to the village to argue about sending carriers up unarmed. Finally, after over an hour wait on the high sun-beaten kunai ridges, we saw the Oweinas coming, and I finally went down to meet them, for they stopped climbing once they saw the armed Tainorabas on the ridge above them with us.

I found the Tainorabas not anxious for a fight, and Tiu persuaded them to leave the cargo and return home. As usual, there are apparently some "immune" Kairabas, and three men and one boy of about 9 have come down to Oweina with us and are well received. In fact there has been a hand-shaking, cheek rubbing and thigh rubbing ritual here in my house between one aged Kairaba and one aged Oweina on the occasion of this visit. The Oweinas quickly affirm that they and Waisara only speak their language, and that no one speaks it on the other side of the Lamari, in the Aziana drainage, or in the Pinata-Kokombira direction (except from a rare marriage interchange, I suspect).

They wear grass skirts very much more like the Kukukukus than the longer grass skirts of married men in Tainoraba, but some married men here have the long variety. Under them they regularly wear the penis binder, but inspection--which they take as a joke, often lewdly, but not seriously offended--reveals that many youths do not have the penis bound in the tight hip-band which they wear, while most younger boys do. In Tainoraba, all the youths were wearing new belts and penis binders, elaborately decorated, and I would like to have purchased one, but too much concern for our difficulty with them in food purchase and in securing carriers dissuaded me from a barter bargaining. I finally gave the Tainoraba luluai a knife to gris him as we left his party. The youths are, from pre-pubertal years, brought by some form of initiation into this adult status with penis binder and belt and special head dress with girigiri, tambu bands and cassowary plume crest. They are rather reserved, but my interest in the "tampoka" has very quickly, as soon as any youths are not with others, with adults, or, when they are only two of them or only younger boys present, brought on immediate grasping for my own genitalia, suggestions for homosexual activity, and sudden penile erections in them. In fact, it is clear that the boys from teen age on, can hardly display their bound penis, with the testes pushed to either side and the penis held tightly and firmly between the legs under a small triangular band which runs from the front of the hip-binder over the penis, under the crotch (perineum)



and up posteriorly between the buttocks to the posterior center of the hip binder, which is a thick bark cylinder without experiencing quick erection. Their homosexual references, jibes and jokes, and their sudden erections which in private they enjoy displaying, and their gestures and quick ejaculations put them far closer to the Kuks in these sexual matters than to the Fore and their austerity. It is of much interest that the small boys and youths and men discuss all sorts of sexual play together lewdly and encourage any partners to pair off and "try it", but treat it all as a huge joke. Once, when the lewd jokes and talk were uttered perhaps in earshot of women, older youths and men sharply reprimanded the boys. Another time, when a group of a half dozen youths were engaged in overt sex play, a shout that women were spotted down the trail broke it up in a panic, but had an adult male arrived, I sense that there hardly would have been an interruption. The youths of Tainoraba are wearing a large spray of dried leaves posteriorly, hanging over their back from their hair. The boys have indicated to me that it is some sort of "mourning" for the prisoners in the kalaboose. Also they seemed to indicate, it is the universal, all-day-long tight "tampoka", fastening their penis. The men, however, tell me that this is NOT any form of mourning and that their kalaboose have all returned. It is, instead, a sign of very recent "initiation", and that the younger boys, in indicating the "kalaboose" term in Pidgin and then displaying their tight "tampokas", usually with a penis in erection, as soon as they are in private, and indicated these dried leaves hanging over their back from their long bark-braided pig-greased hair, have only indicated that initiation begins this "kalaboosing" of their penis!! However, they are certainly not reluctant to remove its "kalaboose", once a bit removed from the adults.

It is amusing to watch the men, sitting around long hours watching me type or work, stand up at intervals to adjust their hip-girdle, and penis binder, for it must get excruciatingly uncomfortable at times, and with a slight erection must be hopeless!!

I sent back from Tainoraba today over 50 boys and carriers, with cargo loads for six carriers (three near empty cargo boxes), and three boys (big hot water bucket and pails, and one Coleman lantern).

Yesterday, after an hour or so of tension, I managed to pay off most of our cargo line. The tension arose suddenly during food purchase, as can often happen, when some men were disgruntled about the amount of salt they received in payment. Some, as in the Genatei villages, called for expensive knives and laplaps for very small bilums of kaukau, and I went to lengths to explain the inordinateness of their requests. When the disagreement arose, many men suddenly appeared in our camp with tight bows and many arrows, and Tiu and the carriers were suddenly afraid, and urged me to ask them to bring no further food, for we had enough--this was NOT the case--for they really were afraid of further "incident". It was interesting to see how quickly our carriers changed from shouting out unwisely to the villagers to bring food, to a stance of urging me to tell them to bring no more!! The tape recorder, with demonstrations of our recordings from the Genatei, intrigued them greatly, and they insisted on assembling for more and more recording of their unrehearsed singing. I recorded over one 1200 foot tape, and found it difficult to keep only to this. They have almost forced me to use my last tape.

Now, as I type, trying to catch up on notes about our Tainoraba sojourn, which I had not the time to make while we were there, a few dozen men and boys from Oweina--all much more "ragged" than the Tainorabas who were in rather decorative and new bark-and-shell finery, are assembled in my house and several older men are drawing pictures. We have even had a first indication that carriers will help us tomorrow. If this is the case, we are really safe, and the troubles about carrying in this always "ticklish" North Lamari will perhaps be over. The Tainorabas did not hesitate to tell me, throwing it to my face, that I was unarmed, carried no bow and arrow, and thus could do nothing if the "bastardly" Oweinas should decide to use their bows and arrows.

Koka (Agusi) stayed behind without my asking him to or really wanting him. After a 4:00 a.m. moonlight departure of my carriers for the Okapa region via Mobutasa this morning, which was a rather tense and not-too-friendly departure, for I had begged them to find four of them to stay on with us to help solve the carrier problem, and not a single one was "game", all very afraid of the region we are now in. There was much discussion, several of the older men with me suggested I take four or eight of the Fore carriers to be sure that we might get through, but when the matter actually came to a test no one was ready to sign-on. I had already paid them all, unfortunately, and it was thus too late to make any use of their "hopes" or aspirations for pay. I had given them exorbitant pay by the kiap's standards, for instead of the two carriers to a box, we have had six and eight in the last part of this trip, and to have given my usual bonuses in laplaps, tobacco, knives, etc. would have exhausted more than the Wonenara trade store, my own supplies and the kiap's. This foolish acquiescence to some three to four dozen "hangers on" has been in the interests of very extensive "education" of my Fore friends to the Wonenara region, but it has been a constant problem on the patrol, and now, cutting from sixty to nine... or from some eighty, with whom I arrived at Wonenara!....I am demonstrating clearly that we can patrol with only a handful, and I could do with only three to five of my boys! Local carrying has never succeeded here before, but I think we might manage it. The Tainorabas incident had been a real problem, however, and for a while, when making contact with the Oweina "advanced guard" of carriers, all armed, and our group of Tainorabas, all with strung bows, while arranging the retreat of the latter before the others arrived, I was none too sure of the situation and worried lest the Tainorabas suddenly use their high mountain-crest position for an attack. Nothing has happened, and I hope all goes smoothly from here on in.

The cutting of the carrier line to NO permanent carriers, and the boys to a total of seven, later six (when Agurio leaves us), has of course forced me to abandon all luxuries, camp shower, ample hot water, etc. from patrol and to cut down even on food. However, we shall survive and well, I trust.

-----Late in the afternoon.

I have recorded four Oweina singsings, taken a good deal of cinema and many pictures with the Leica, and purchased several dozen fine arrows, which the boys are pestering me so hopelessly for that I could never satisfy them even dividing everyone among them--I have given Undopmaina a set of eight fine painted arrows already!! This is certainly the place where fine arrows are made!

We have assembled at our camp almost all the women and children of the village which consists of two major hamlets and several single and grouped garden huts. At one occasion I counted 65 women and children. Many of the children were painted with mud or white fire ash, but all were friendly and not very timid. We had ample food brought which we purchased for salt and razor blades and soap, and we managed to dissuade the people from bringing more when we had purchased enough, without causing anger or belligerence which is, in low controlled areas, a frequent occurrence. We have signed up all cargo carriers for the whole trip to Wonenara, and whether they will all show up and serve well remains to be seen. If they do, it should be a very easy trip.

In the Aziana valley near the Genatei villages there are both wild lemon trees and mango trees. I have just finished the lemons we brought back with us using their sparse juice in tea. Koiye is mimicking dead men, lying down with eyes rolled back and tongue protruding in a grotesque and hideous fashion, and he does so with a fairly realistic appearance of death in some subjects. He has obviously seen dead people often, but it is interesting that he and other people can jest about it. Uwele often made similar death grimaces in jest whenever I was teasing him. These also are reminiscent of the grotesque faces which the Fore often made for their singsings. At the Christmas singsing at Okapa there were a few traditional ones, but these grotesque and hideous masquerades are dying from fashion in public singsings. Thus, at Waieti of Agakamtasa this year I was surprised to find the small boys in their play singsings and mimicry of adult dance, executing both the penile and anal dances with outlandish floral decorations, including sprigs held in the anus and penis display but also distorting their faces into these hideous masques with the strings of vine, pulling the eyes and mouth and cheeks awry with these binding strings, often with the tongue pulled out with a string or distorted with mouth-deforming bands and strings. Agakamoto, who executed the lewd Fore dances for the camera along the trail, was often so deforming his face. Thus, small boys of six-eight years have seen enough of this and know how to fashion the masques and execute the dances, and they cannot be as dormant as they appear to be.

March 31, 1964...Pinata, Pinata-Kokombira Dialect of  
Tairora Linguistic Group

We have arrived here in mid-afternoon after a busy day of trail, made much more interesting by the fact that we are only a few...seven!...while all the rest of our party of twenty, are Awa, Genatei, Oweina-Waisara and Pinata-Kokombira Linguistic Group Members. This makes our travel much more interesting, and we no longer inundate the local scene, especially since my carriers are also "local". We made the steep ascent to the high ridge above Oweina without crossing any gullies, and thus I found it not very difficult. We then stopped for a good half-hour, for it was still early in the morning, to wait for the cloud which engulfed us to lift. During this fruitless waiting, the local Oweina carriers and hangers on, all armed with bows and arrows, used the shaft of arrows as wands which they swished in the air toward the cloud to drive it away. Undopmaina claimed that their magic would not work, and the correct magic involved throwing earth into the cloud, which he did—in jest, however, whereas the Oweina men were at least partly serious in their maneuver.

Before 6 a.m. the women and children of Oweina--certainly over half of them--assembled to see us off. I had wanted to collect blood specimens yesterday, and then again this morning when the opportunity has been so propitious, however, I hesitated because of the two or three days of hot kunai- slope carrying before us. At Waisera, however, which we descended to when we finally gave up waiting for our cloud to rise, I determined to make an Oweina-Waisera collection, and thus we have spent the best part of the day there collecting just under 100 specimens from men women and children. The entire Waisera group is not much over one hundred persons in size, I suspect. I did not want the women and children to wander off while I bled the men and boys, so I asked Undopmaina to start with them. He has learned to do venepunctures and use the venules well. Tiu also can manage them, but not as well, and Tiu promptly began to help him. It was not wise for me to have let them, for most of Tiu's specimens are 1-2 ml. only, while Undopmaina succeeded in getting full venules usually. I did the small children that they could not manage. As a result, in a few hours stop at Waisera we were able to bleed over 90 persons, and thus we have a very good collection, although I regret greatly the two dozen or so of small, inadequate volume. I believe the Oweina carriers are going on to the station with me, so I can bleed them--another dozen--there! This makes these two small and very interesting groups of Genatei and now, Oweina-Waisera, well sampled. I have been surprised by the name styles of Waisera, with long names far more complex than Fore or even Genatei. Also, there are at least two or three different names for every adult male, and the individuals themselves cannot recall which of several they gave me only a short while previously.

I have Pinata youths drawing about me as I type, and our small dozen-sized group of Oweina cargo-carriers is making their camp. They are slower than my Fore carriers, but manage well, even with the heavy cargo box.

This North-Lamari shore is a fascinating area demanding much further study than it has received and not to receive it too late. When I was here previously was the proper time, when things were highly traditional and hardly changed a particle. Now housing, dress and manners are all changing rapidly, but there is much more old tradition preserved yet than in the Kuru region.

Most Waisera and Pinata youths who do have the penis-binder have not bothered to use it, but only wear it as a hip-band. I purchased from a Waisera boy and now another from a Pinata boy, two of the decorative bamboo cylinders with the braided chains of rattan and pendants of the tails of cuscuses. These I paid a large knife for each to the great pleasure of their owners. These and the Genatei cuscus-hunting goodluck charm with cuscus testes as pendants and now a rather large stack of arrows--over 70!--are what I have bought of local artifacts on this circuit. We have not had anything of major medical interest, only a large number of tropical ulcers and sores--especially at Tainoraba. There have been a few cases of yaws.

We left Waisera after noon hour, and made the climb to Pinata in about one and a half hours, I suspect. Pinata has expanded and ceased to "hide" its houses and its gardens are also now greatly expanded, from those I remember from my previous visit.

Most of the Pinata hamlets, and there are now many of them, are today nearly deserted, for most of the group is far down the slopes planting new gardens. There is a huge ridge, the next one upstream from us, which has been entirely burned off during the very recent past. Its charred grey color contrasts beautifully with the various shades of green and yellow-buff of the slopes about us. The light green slopes where new kunai is coming up after burning, are the prettiest.

I am now ready for an extensive patrol through the Marawaka and Usirampia and Amdei to Menyama and thence to Nolambde, but since this should mark the beginning of a vast South-eastern Kukukuku region survey, I am tempted to call it all off, for it will now only be a rushed expedition, since it is already April when I should be leaving. I am loath to abandon the fine start we now have, but with the Western Kukukuku rather thoroughly surveyed this year and with much new material on hand, I had best call it quits, and head for home. I have not yet told the boys of my decision to curtail our current patrolling plans, but I think they will not be adverse to it, for they too have nearly had enough.

At Waisera the Oweinas with me were greeted by a long-extended hand shaking, with accompanying shoulder holding, and often stroking of shoulder, back, arms, cheeks and occasionally thighs. This form of protracted greeting is apparently traditional. I caught some of it on cinema.

The recent fighting between Oweina and Waisera for which the kiap has kalaboosed many youths of both groups was about one of the very early marriages. The lad of 13 or 14 who returned to Waisera via the Genatei with us when we left Wonenara was an early pubertal boy whom I never suspected to be married. As it is, his 12-14 year old wife--and it is not a very recent marriage--is here, and the boys tell me (i.e. Imipina and now, Menandue, the Oweina boy who speaks Pidgin), that the Oweinas raped her and this started the fighting. She looks a lush late pubertal, hardly fully mature adolescent who would welcome such an assault, and her husband is certainly not up to her sexual prowess!!

One of the well ornamented youths drawing here, who carries a net-bag of cuscus skin with bird bone pendants also has a strange hair-band of segments of yellow vine each bearing a cuscus testicle-scrutum pendant. I shall try to purchase this also.

No success, the highly decorated boy is only recently initiated, and does not want to part with either of his charms. I have the following vocabulary for them:

| <u>Oweina-Pinata</u> | <u>Genatei</u> | <u>Pinata</u>               |                         |
|----------------------|----------------|-----------------------------|-------------------------|
| nave                 | ponguru        | namesatua                   | net-bag pendant         |
| tamba                | pono           | anga                        | flying fox bones        |
| nauwesa              | tchabitche     | nauwesa                     | nut shells<br>dangling  |
| nakara               | anagi          | ta'o (but<br>worked "na'e") | bamboo-tube<br>ornament |
| parembara            | arami          | parembare                   | chain-braided           |
| tarepa               | tarepangani    | tarengo                     | cuscus tails            |

April 1, 1964... Konkonbira (Kokombira),  
Pinata-Konkonbira Dialect of Tairora

We have arrived at the kiap's camp at Konkonbira, high on a ridge on the furthest Konkonbira ridge, thus making our trip today as long as possible. We first crossed the high ridge east of Pinata to arrive in the highly settled and gardened narrow valley of Pinata No. 2. This group, as well as the group we camped with yesterday, have Pinata as their big name. The old site of a Pinata hamlet which we passed through first on leaving Pinata is called Sinua, while the hamlet near our camp is Sueira. A new scattered hamlet between Pinata and Waisera is called Ponambupia. The second Pinata valley (Pinata No. 2) has a large house in it, erected this year in fear of a return of the eclipse, at Tsangwo and Nuweisa, the two main hamlets. What started a rumor of an eclipse again I do not know. The kiap thinks it may be new villages being built across the Lamari. Konkonbira hamlets are Kairagwanya and Paivemata (on top, near our camp), Puwobona and Tshangwaia (the large new hamlet near Oraura). One of our cargo carriers has now a high fever and shaking chill which looks like malaria. He has just been given Nivaquin. Tiu has been ailing for days, and at first I gave him half-hearted treatment with sulfadimidine, which he never took regularly, and now I have him on Terramycin. Undopmaina has a mild chronic cough. I myself am better than I have been at any time of the past six weeks of patrolling, and suffer only from a few deep kunai cuts and a few toe blisters.

Tabe, our translator for Pinata-Konkonbira dialect of Tairora is extremely short--actually nearly of circus dwarf stature. There are a few others here in Pinata and Konkonbira of very short stature, but they are exceptions, and most men and youths are not noticeably short.

The hand-shaking, shoulder, back, and cheek rubbing rituals of greeting were more excessive by highland standards than I thought. Today on the high kunai ridge summit overlooking Konkonbira, the Fore boys were joking about it, and with shrieks of laughter, imitating these prolonged handshakes of the Oweina-Waisera group with each other and with me

At Pinata I recorded a few songs in my camp house, but the singing was not inspired and too few were involved. However, it was interesting that the singing was rather melodious and somewhat like Genatei singing.

-----late in the afternoon, nearing sunset.

We have bled over thirty men, women, and children of Konkonbira in a late afternoon drizzle at our high camp, too high to be practical, for it is so far removed from the hamlets and gardens that it is a great effort to bring food to us and the people must climb long and steeply to visit us. However, some 30-40 have been here with us all afternoon and ample food for our small company has been brought, so that there are no problems. We have seen no significant medical problems here or at Pinata, and this is certainly contingent upon the brevity of our passage. Had we remained a second day at Pinata and if we stayed here tomorrow, we would see plenty of patients warranting attention. I now would like to spend a patrol of a full two weeks or more in the Pinata-Konkonbira-Oraura-Habi'ina-Himarata region and also, thereafter, make the vast Eastern Kukukuku circuit extending down to Papua and Kerema giving some 2-3 months to it. This cannot be done now, so I shall reserve it for a return later this year or in early 1965!

Our Oweina carriers are slow and rest often, eat often, and talk much on the trail. They are in no hurry, even if we may be. A few, however, lug the one cargo box, which is none too light, continually and doggedly up the steep hot kunai slopes.

Late in the afternoon there was a great kunai fire down toward Waisara and Pinata which soon filled the whole Lamari canyon with smog, and this smog is only now clearing at sunset. The extent of it and its thickness surprised me, but the burning of these vast kunai slopes would obviously be sufficient to fill more than this huge valley with smog.

I learned too late, that down in the rock-formations near the cliffs forming the deep canyon of the Lamari below Pinata there is a small spring or pool which is the source of a saline mineral water. The Pinatas and Konkonbiras use it. They say that in dry weather it dries out completely, in wet weather the small catchment fills up and the people collect the mineral water in bamboo cylinders and drink it. Spontaneously, without my asking, they tell me that those who drink too much have their "eyes swell up". They describe palberal edema perfectly. Baira and Genatei people come to Pinata to buy this water, but they usually fill up their own bamboos and then do not pay for it. They also compare it more closely to "government salt" which is trade NaCl, than the Kukukuku salt of Baura, Imani, and Wantekia. They call this mineral water "iso", whereas they call Kukukuku salt, "orao", and trade salt (NaCl), "sol" or "orao". The place where the mineral water is collected is called Isopia.

The Konkonbiras tell us that the kiaps--the two--have departed today for their Simbari-Moraei patrol on which I promised to send Agurio. Whether it will be best for him to try to follow them, two days, behind, or to fly out with us and come back to Moraei via Okapa, I do not yet know.

We shall try to leave early tomorrow, cross the range to the Aziana valley, and reach Wonenara by noontime or early afternoon, with luck.

April 10, 1964...Kainantu, Eastern Highlands  
Territory of Papua and New Guinea

A second night in Kainantu and too much! Fortunately, I managed to spend most of my first day and first night out from Okapa at the Summer Institute of Linguistics base at Ukarumpa studying the Lloyd's manuscripts on Barua Kukukuku language and Anthropological notes by them as well. I have also managed to read over the 1960-1961, 61-62, and 62-63 Kainantu Patrol Report files, studying especially the Auyana, South Lamari and all Wonenara Area patrol reports. Thus, the time has been profitable, and the boys with me (Undopmaina, Tiu, Koiye and Injuriwambio) have all managed to help me greatly. We have packed and dispatched the Nagra III and the two Paillard Bollex cameras, and in a heavy shipping box--the other case of our virus insulators we call "hat boxes" I have dispatched together with the tape recorder and one camera, the lighter and best of the artifacts left with me, along with a stack of sundry pathological specimens left here at Kainantu by various medical officers in the past, and also many of my remaining research records and papers. However, far too much of the time has been spent in gossip and talk. Since most of it has been with the two elected candidates from this area who

are Europeans--Barry Halloway and Gilmore, the winner of the Kainantu open electorate and of the Highland special electorate elections, respectively,--it may have been time well spent; for they will have more than the usual influence on the political future of this country and I enjoy their company.

I have been twice to S.I.L. and Ukarumpa and to Aiyura today, both times with Barry Halloway driving me. First, we went in the morning to visit Jim Watson, who had just flown in from Moresby via Lae with the S.I.L. plane this morning. I talked with him for about two hours, discussing our work and learning a bit about his--but doing, as usual, most of the talking. He will remain here through June, completing another year in the Tairora village. They have stayed six months in one village and have now shifted to another. However, Jim has done very little work with the southern Tairora, not extending his studies beyond Obura.

Mr. Tindle, director of Seventh Day Adventist school here, told me he is sending the Fore S.D.A. missionary who was formerly at Agakamatasa to Moraei in the near future--thus there will now be James's missionary and a native S.D.A. both in small Moraei! I hope the Kuks are more than a match for them. I have not been adverse to giving S.D.A.s and New Tribes, Jameses, and the Lutherans all "advice" about the area, for since they are coming, they might as well all come for a real heyday, with the Kuks exploiting them all and disregarding them all in the long run! I trust the Kuks will, in the final analysis, be able to exploit them all, reap educational, economic, and material advantages from them all to a maximum, and to use them, more the merrier. I hope I am not overestimating the Kuks. How prosaic to have them revert to fire-and-brimstone fundamentalists or apple-polishing polite and intimidated Lutheran schoolboys. No danger!!

Thus, I have given good and fair advice to them all, encouraged them all, and seeing that they are coming shortly anyway, encouraged them all--S.I.L. to boot!

We have also packed and shipped off to Hornabrook at Okapa most of the supplies stored at our old Kainantu Laboratory. As the malaria eradication team and the routine hospital work has more and more completely taken over the laboratory much of our supplies have been slowly used and pilfered. I have encouraged this with my Kainantu colleagues and it is really surprising to see how much is left, rather than to notice what is gone! Most of what is left is now off for Okapa where Hornabrook can use what he will and where I trust he will store the rest well for our future returns.

The boys sleep, as we did in the past, in the laboratory and I find it a very convenient headquarters here at Kainantu. It gives us a base to work from and has paid for itself several times over already! Vin did wonderfully in getting it built so well, so quickly, and so cheaply.

Ever since arrival in Wonenara over a week ago I have virtually dropped journal keeping and recording, being too busy from morning to late at night. However, this has been a week I do not enjoy as I do village life in the Fore or Kuk areas or on moving patrol, but one necessary if the other study and work is to bear fruit.



I have negotiated with Mr. Tindle today to enter Koiye experimentally into the third grade of his Keakasa school when Koiye returns from the coast after this brief trip I am taking him on. I hope Koiye is up to it--it will be hard on him but I have high hopes! Keakasa is the best schooling yet available in the South Fore, and Koiye at 12 or 13 needs to be in with boys of the age of the third form boys, his friends. Whether he can keep up and catch up is a problem! He is clever but not brilliant. Injuriwambio could not make the grade!

Tindle has returned from leave at his home in Tasmania. He has not been back to Agakamatasa and has never visited Moraei. However, he has "big plans" for the western Kuk regions, as do the Lutherans and the New Tribes people and James also. He has orange trees at his Kainantu mission bearing fine fruit...and tangerines as well. He confirms the report I have had that trees grown from seed may not bear fruit, and that seedlings from cuttings are preferable, and reminds me of the possibility of grafting "European" citrus tree stock onto more hardy local wild muli trees. I know so little about horticulture that I cannot advise the Agakamatasa people at all on these matters and I am still frustrated in supplying their needs in live stock, new crops, fruit trees, and agricultural development advice. I hope I can find help for them soon...for they are ready and eager and with land from below 2000 feet elevation along the Lamari to high rain forest near 9000 feet in elevation. They have a wide range of land and climate available to them.

Joy and Dick Lloyd, now on a year leave back near their home outside of Sydney, have left valuable linguistic and anthropological notes and manuscripts on file at S.I.L. which I have been studying carefully. If they can get these out and published soon it will be fine, but I fear there is much further work. I have asked that Ruth Nicholson and Ray Nicholson ask them for permission to loan us a copy of all this for copying at N.I.H. and our work. I hope they concede. The linguistic work looks very thorough and good. Anthropological notes are also valuable, but not organized nor very extensive. However, I have taken down notes from a brief and hurried reading, and I shall try to summarize these on a few sheets, in fear that they may fail to get it all preserved.

With luck, I shall fly with an S.I.L. plane and the four boys to Lae tomorrow. I would like to return via Singapore, Kabul, Moscow, Paris, London, New York, but this route may prove impossible. I also would like to leave directly via Kotabaru, West New Guinea, and Djakarta, but I am told that Djakarta to Singapore passage may not be possible by air or sea even if I do succeed in getting in to West New Guinea and across to Djakarta. I do not know whether my visa has expired and fear that in spite of my admonitions, it may not be adequate for entry via "West Iranian", and in this case I shall be furious for I warned Marion, Jeni and everyone to get VERY SPECIAL permission for East to West New Guinea entry and they seem to have left it to channels and not bothered to really push it through, believing that the Indonesian Embassy would automatically take care of it. I am already long ready for this discovery--from the time I left the U.S.--but I managed to refrain from raising a row about it I was anxious to make with difficulty.



West New Guinea (Irian Barat)

Sojourn in Djayapura and Biak, West New Guinea,  
and Visits to  
Macassar, Celebes and Djakarta, Java,  
Indonesia

April 14, 1964 to April 23, 1964



April 14, 1964...Madang--Wewak--Kotabaru Flight

With the four boys just managing to refrain from tears, I have departed from Madang, Rev. Adolf Schuster and his wife taking Tiu, Undopmaina, Injuriwambio, and Koiye in tow. They have tickets for Goroka on Saturday morning, a letter to Rheese Healy at the hospital asking for help in getting the three of them back to Okapa while Undopmaina remains at the medical school there and Koiye is armed with a note to the principal teacher at the Keakasa, South Fore Seventh Day Adventist school asking him to take him in as Mr. Tindle, S.D.A. chief at Kainantu agreed, into the third grade where Tutavore can help him try to catch up! Tiu and Injuriwambio are to shepherd the tools and windowlite I shipped off to Dick Hornabrook from Lae this morning to Agakamatasa and Moraei and to look after the house and the building of a new one while Wanevi is training in Awande with Schmutterer for some six months. If all this really does work out as planned I should be most astounded and pleased. It represents the maximum I can do for these boys, and it covers Undopmaina, Tiu, Wanevia, Koiye, Injuriwambio and gives Yoyo'e, Adjetmaga, and Agurio supplies and a well-paid task at Moraei. Anua and Togaba, Agusi (Koka), and a host of small and large boys at the Agakamatasa, Mugaiauti, Moraei, Simbari... Awarosa and Muniri...remain much less adequately rewarded and "placed", but there is a limit to what I have been able to arrange.

Koiye and Injuriwambio have been longest and closest to me this year, but the others, including small Pauwa and Ata and new Nungutme of Tchengai, Simbari have all been loyal and exceedingly helpful. I have been most fortunate.

We spent three nights in Lae, where Lloyd Spike put me up and gave me fine hospitality and assistance, assistance without which it would have been very much more difficult to take care of the boys. As it is, they have had a very educational and confidence-building survey of Lae and environs, and with some luck they may have the same from Madang, since Rev. Schuster has promised to look after them well.

Yesterday, as I was placing a large sea shipment of artifacts (c. 100 arrows, 15 Kukukuku clubs--7 wooden, straight, 5 wooden "hooked", and 3 stone-headed , 4 shields (Kuk), and the fish trap together with the ruined Smith Corona portable typewriter) under the care of Kevin Seeto, Customs Agent and shipper. The Australian woman who runs a modern furniture shop in the building with him, introduced herself as Mrs. Vasicek, whose husband was from Czechoslovakia. Soon he too arrived, and it turned out that they had known and heard of me for years. He is a senior member of the aircraft ground crew staff for TAA, an escaped Czech refugee to Australia, who has been here in the Territory for 11 years. His mother is in his home town of Brno. They told me that Sedlacek was coming down by car from Wau that evening, and invited me to their home to meet him. Thus I spent 9:00 p.m. through 1:30 a.m. at their home drinking Saki and talking. It was an interesting evening. Vasicek is somewhat like Vin Zigas, but less excitable. He is self confident, adventurous, determined, and able. He has married a very typical Australian Sydney girl who reminds me much of Gloria and who in her conservative attitudes, cautious need for security for her brood of three sons, fear of the Territory and desire to settle completely conventionally in secure middle-class bougeousie Sydney is now all-pervasive and obviously NOT

what Vanicek wants from life! I could not help but get involved in this long standing family argument, with Vanicek wanting desperately to immigrate to America to work there in our aircraft maintenance industry for which work he has nearly two decades of qualification--Czech air force and now eleven years with QANTAS-TAA moving to top of maintenance crew at their main New Guinea base! He has reason to be self confident, ambitious, romantic, and not overly concerned with conventionality, security, and the "future" of his children....but this threat to risk all the family small fortune on an immigration to America has terrified his wife. They have three boys 4, 5, and 7, he wants more and she does not, and already the oldest is suffering from chronic sinusitis, allergic rhinitis and "psychological problems" (sleep walking, etc.). They have taken him to Sydney, left him with his maternal grandmother, and are now trying to decide whether his health will force them to leave the Territory as the mother would welcome. So reminiscent of Gloria and Vin is this whole matter, with such a clear cut and similar difference in temperament and anxieties behind it, that I am amazed. Vanicek soon admits that the jealousy and harrasement and blocks to further advance that he finds in the Australian community because he is a New Australian from Central Europe are infuriating and discomfoting, and he wants badly to immigrate to the U.S.

Sedlacek is older, ailing from sciatica of mild degree right now, but bound today for Honiara and a long collecting sojourn in the British Solomon Island Protectorate on which his wife will join him in a few weeks. He has a 13 year old son who has helped him in mammal collecting and skin preservation and other collecting, but whom they now left in Charters Towers, Queensland, in school.

I am bound now for Kotabaru, with a ticket converted to the Kotabura--Djakarta--Bangkok (no Singapore stop-overs permitted because of Indonesias "confrontation" policy toward Malaysia) --New Delhi--Amritsar--Kabul--Tashkent--Moscow--Stockholm--London--New York--Washington.....all essential without appreciable stop-over or interruption and with arrival in U.S. still this month. The problem of Afghan and USSR visas, of missing necessary talks with Lim in Singapore unless I shuttle down and back from Bangkok, and the major problem of really getting on to Djakarta and not held up for visa formalities or something at Kotabaru are my major concerns just now. If I make Djakarta tomorrow, I shall be most fortunate, and this will certainly then have been by far the fastest route out...barring any getting stuck in Djakarta! I have a good visa, but no knowledge as to when it expires and no sign, inspite of asking for it, that it is really valid for entry via this route into West Irian. If anything goes wrong, I may have to return to TPNG tomorrow! I hope not!

This has been a long and intensive period of fieldwork, as intensive and productive as I can ever hope for, but now I want to get back to the NIH and laboratory work and writing. Mbagintao, Bobby, Mother, and the whole family are on my mind, Marion, Dick, Joe, Paul, Mint, Flora, Ruth and the students. Nancy Rogers has written that she wants to join us, and I do want to find a chance to use her vast ability and experience to both her own and our advantage. The problems back at NIH looming before me are legion and I must find some way to prevent "administration" and "organization" from interfering with real study, work, writing, investigation, and critical thought. This is a constant danger, and it is no small task to side step all the bureaucratic

problems of personnel and planning for real intellectual endeavour and inquiry,

I am trying now thirty minutes out of Wewak, as we fly through the clouds with occasional views of the Sepik plain. I shall try to get this journal mailed off to Bobby from Wewak...for from it he, Mbagintao, Mother and the laboratory and office people can know of my plans and progress perhaps before my arrival.

I am leaving Andrea DeDerka, the PhD people in Moresby, Vin Zigas and Jack and Lois Baker, John Gunther and a host of others unvisited and without any final discussions, meetings, or "good-byes", and in spite of the awkwardness, this is best. It saves days, even weeks of travel and sojourn and bids for better contact and more frequent. Goodbye visits accomplish little.

April 14, 1964...Kotabaru, West Irian

Here at last, and already aware that my reservation to Biak tomorrow means nothing, for there is no flight until Friday, the 17th. Thus, inspite of good intentions, I am stopped and have time to look more carefully.

At the old Gouvernements Hotel, now Hotel Negara, I find no accommodations available, and a sign simply stating "no accommodations" at the reception desk. By parking myself here with the TAA air crew--pilot, copilot, and hostess of our DC-5 we finally get attention and are offered two-bedrooms. Since the hostess wants privacy, this is not enough, and I abdicate, remaining unaccommodated. By simply sitting out this impasse, I finally am offered a room...for the hotel is far from full, just "no accommodations". Now I am surrounded by Kapaukua young men dressed in long trousers, white shirts apparently, under the leadership of the well-educated. English-Dutch-Malay speaking "wontok", managed to enter the Hotel service here en masse, and there are almost a dozen of them working at the hotel.

It is only after very brief contact and discussions with them that politics becomes clearer and I begin to understand the situation here, However, the trip in from Sentani was already revealing.

The Indonesians inspected my passport carefully, awarded me a full month West Irian sojourn without difficulty, and we entered the country without a single customs inspection or monetary control. There appeared to be no customs officials at the airstrip. A Garuda Volkswagen bus took the air crew and myself, and an Australia business man into Kotabaru. Along the road what was most noticeable was the lack of change--status quo bordering on stagnation. More alarming were the empty streets; the few houses in the grass and bush along the road were largely deserted and the many children I am accustomed to seeing along the road at certain stretches were not to be seen. Thus, a dearth of Papuans compared to formerly, is the first matter striking my attention. Along the whole road, two new native-material huts were the only new construction I saw in the thirty miles! Many of the old huts appeared to be deserted.

As I type now in the early evening after sunset, a crowd of Papuans have gathered about me, all Kapaukuans, and all consider themselves very distinct from the Indonesians. They feel secure in the native language, not overheard by anyone but themselves, but only a few of them speak good Dutch, and one is conversant in English. They are all hotel workers and seem to have cornered the "hotel line". They all know of Victor de Bruyn and of Raphael den Haan and speak fondly of them, one asking me for den Haan's address and how he can get in touch with him. I can only suggest via Victor de Bruyn at SPC in Noumea.

The TAA crew bring their own beer with them from Australian New Guinea and I spend a few hours seated with them, drinking beer and talking. TAA sends Captain Webb and the same crew every fortnight, in order that one group can establish contacts and learn the ropes well here. This crew has done so and they are picked up by the Manila Phillipine Shell Company representative for supper.

We meet the Javanese police pilot who flies the police Cessna to the various inland and south coastal air strips. He is a young man who first started flying in 1954, and is probably not yet thirty years old. He has been here but five months, is frightened of the mountains and the weather, and jokes pleasantly about the hazards of flying. His assistant pilot has just "touched a wing" in landing here, and has to check the Cessna over today before flight tomorrow. TAA Captain Webb promises to try to get some Cessna parts for him from Lae, which he cannot get here.

I enjoy talking to the Kapaukuas seated around me, and they are obviously anxious to gain contacts with Australians and Europeans, and without even a really adequate linguistic contact they make it quickly and amply clear that they have troubles and grievances.

April 15, 1964...Kotabaru, West Irian

A full day and an evening and a half of yesterday to look around and learn. The town is unchanged since the period of United Nations administration, in the outward appearance except for a bit of disrepair creeping into the buildings, roads, and signs. Indonesian replaces the Dutch on all signs, except a few large advertisements and company names, which are not easily erased. One metal roof sports a huge "Hollandia" which would require repainting to remove. Dutch hotel rules still hang in my room in Hotel Negara, but Indonesian are also posted.

However, the impression of the first hours is now fully confirmed. There are far, far fewer New Guinea natives in town than previously, far less town life, far more empty buildings and shacks, and far fewer children at school, on the streets, or hanging about the roadside houses. A view of what was the "inner town"-Hollandia Binnen-from which Kotabaru takes its name, I believe, for I was told long ago that Hollandia Binnen was properly Kotabaru- explains much. The steep mountain slopes above Hollandia-Binnen, or the inner town of Kotabaru, are covered with new gardens, freshly cut bush and new gardens with ghost-like killed trees standing, and some extend high up the slopes. Before there was only limited such native gardening, the economy with good jobs permitted purchase of the imported food supply. Now this is no longer the



case, and the native population is taking no chances. Perhaps their market opportunities have improved, with less imported, but there is little evidence of more market activity and much of fewer native customers! Indonesians fill the town, and among them are seen even fewer Melanesians than we would see mingling with the Dutch. Government offices seem to still have many New Guineans employed and a few--fewer than formerly--are in the Bank. However, most shops are still closed, and those open have a very, very meagre stock and this is priced high. The schools are functioning and Papuan children are in them, but they are neither as crowded as they were nor as boisterously childlike. This may be the result only of fewer children. Some have empty classes, as I note in passing the higher secondary schools along the Sentani road through the inner town. There were two bookshops in the main shop center which are better stocked in their wares than are the other shops in their respective commodities. One is apparently a Catholic shop with the Indonesian and Dutch texts and several "learn English" books. The other is a larger, more general shop filled with text books for higher education, including stacks of Asian Student Editions of standard American texts published by Wiley and at lower prices and restricted from importation into the U.S. However, most are texts in Thermodynamics, Biochemistry, Quantum mechanics, Electricity and Magnetism (theory), Nuclear Engineering, and other advanced subjects for which I seriously doubt there is a market here in Kotabaru. It is nice to see them here, and to hope that one--even one single!--Papuan might profit by the unusual opportunity, but even at their low price they are beyond his financial range, I fear, and I am very doubtful that there is an Indonesian in town let alone a Papuan who can use them. A few in Modern Physics, English grammar, and Engineering may be of much use, however. There is a stack of English paperbacks also "inflicted" on the dealer. Stacks of ten and twelve paperbacks on American wild animals, American wild flowers, American cooking, etc., and many hardly sellable "English Classics", some of which might go over well as reading exercise for students learning English.

The absence of Papuans shopping, of Papuans in the street, and the lack of the former milk bars, cafes and small restaurants makes the town particularly dead and sleepy. Those around are more hesitant at greeting one, more withdrawn and less jauntily self-confident than in the past, and since it was this jaunty spirit of self-confidence in the Papuans here which contrasted even with that of Lae, Moresby, or Rabaul, it is a noticeable change.

Young Indonesians are friendly and helpful, and from soldiers to government civil servants, they are much more anxious to make acquaintance with visitors and especially Americans than were the Dutch in general. This proves to be an inconvenience, for time and again, when one is alone and Papuans start to talk to me, or begin to approach me, I find an Indonesian coming along to corner me as well. Not at all to limit my contact with Papuans, but from their own desire to have American, British, European, and other contacts and their own need for wider horizons. This then puts them in "competition" with the Papuans, the Papuans tactfully withdraw. At the Hotel, in shops, on the beach, on the street, and on many occasions I have had fine conversations with the young Indonesians, but always at the expense of curtailing my impending contact or just-established contact with the local Papuans. As I was talking to a group of New Guinea children on the road out to the open-sea beach, three Army sergeants driving an Army Mercedes truck asked me if I wanted a lift, and insistently offered me one. They were out for a spree on the sea-beach, quickly after arriving finding Papuan women and young boys, but

before I parted from them, they begged me to take their picture, which I did, and then even wanted me to pose with them. This friendly, insistent good nature on the part of the Indonesians is beguiling and pleasant, and one cannot but help like them very much. However, it leaves the Papuans out of things and I feel with them as one would with affection hungry children when a batch of talented prodigies steal the attention and human contact of visitors from them, which they seek. There is certainly nothing wrong with the Indonesians in personality and intention that I can find. They are doing their best. However, one wonders whether the future of such an underdeveloped land and people as those of Melanesian West New Guinea should be in the hands of "underdeveloped" Indonesians.

We use Irian Barat rupees at 3.54 to a U.S. dollar, preserving the old Dutch exchange. The special currency is clearly marked Irian Barat, and true Indonesian currency is not used. Postage stamps are in two sorts: higher denominations pictured with Irian Barat and valued in terms of the local currency; lower denominations from Indonesia proper surcharged "Irian Barat", and in some cases revalued also, in others left at the Indonesian value--but paid for, of course, in Irian Barat Rupees:IBRp. I have purchased a set of stamps for children at home and a laboratory exhibit to the curious. Three new Irian Barat stamp designs, each used on two denominations, are interesting. The 0.12 and 0.17 IBRp stamps show maps of all the Indonesian Republic including West New Guinea with Indonesian flag flying on staffs planted in the northwestern tip of Sumatra and the southeastern tip of West Irian (near Merauke). On two of the Irian Barat stamps, values 0.20 and 0.50, there is a picture of a paratrooper landing and furling his parachute. The propaganda credit for the "conquest" to their paratroops who secured a "military victory" is a standard "line" with Djarkarta, although they never captured a thing and won by clever politics and press, certainly not by force of arms, as they seem in need to imply to their people! On the road in from Sentani, soldiers are working on the final landscaping of a simple monument to the "victory", with a set of graves marked by crosses and other grave markers--I did not see it too closely, but it is apparently to the heroic paratroopers who were lost in "conquering". The third new stamp design is a beautiful stamp showing the \_\_\_\_\_ Bird of Paradise superimposed on a light outline map of Irian Barat (0.60 and 0.75 IBPr).

I have written to Mother, to Mark, to Dick Hornabrook and to Jack and Lois Baker, and now with journal writing again started and caught up, I shall try to turn to further outstanding correspondence.

The sea beach was virtually empty all afternoon and early evening, and here I met several interesting Indonesians and more interesting Papuans. The old shack where refreshments could be purchased is still standing, and several Papuan youths seem to be living there along with one Indonesian lad in his twenties who is in the government information Office at Dok II. He speaks good English and is from the Celebes. Many Indonesians speak a bit of English and a surprising number speak rather good English. A Papuan from one of the Kotabaru sea villages picked me up as I walked back toward the Hotel. He was driving a new Volkswagen which he said was his own. I had seen him with others in a beer party on the beach. His name is Lucas Sibi, and he speaks moderately good English. He is going to Holland in May to den Haag where he will be with Nicholas Jouwe, who was formerly here, for about three months. He works with the government firm Irian Bhakti. He is certainly one of the

better educated Papuans. At the Hotel the mission-educated Kapaukua lad who speaks moderately good English has asked that I write to him. He is still studying and trying hard to improve his English. It comes as a surprise to find him and the other Kapaukuas at the hotel, and he speaking English.

April 16, 1964...In flight Kotabaru to Biak over Sarmi

We are flying along the northern coast of West New Guinea in beautifully clear weather and not too high an altitude. thus, I have had better views of the coast and coastal strip inland than ever before except on my Cessna trip from the Highlands to Sarmi. I have taken many pictures of the coastal lowland forest, small rivers, and of villages.

I have spotted each river as we travel westward, but without a map. I do not know just where we are. I have been waiting for the Membramo, for I would very much like to photograph its mouth, and study its coastal approaches, for it is up this river to the van Rhees Gerberte, and into the region west of the Membramo and north of the Ruffaer that I am most anxious to journey.--I think this is it coming up!

It certainly was. But it is such a mighty Delta that I have finished a roll of film on it! When we finally got to the main mouth in the tremendous delta, I had almost finished the film, and I had rather poor views, for we went a bit inland, over the main mouth. I had not studied the maps of the Membramo mouth sufficiently in the past to have been adequately prepared for this vast Delta! We are now heading out to sea toward Japan and Biak.

Mr. Sujud Adiwikarta from West Java is the Garuda Traffic and sales Manager for West Irian. He has been with his wife and daughter at Hotel Negara at Kotabaru and has driven me out to Sentani with him. The previous manager is on leave and he is a replacement. He tells me Garuda flies weekly to Merauke and has an additional plane fortnightly. They fly only fortnightly from Biak to Enarotali (Wissel Lakes) by Twin Pioneer. The service Biak to Djarkarta is twice weekly and is by Electra. Thus, Garuda is well in control of the air routes and doing alright. They have kept up the fortnightly flight to Lae, alternating with TAA, even though Australians always insist on saying that they are on the verge of abandoning their flight and cannot be depended upon. Captain Webb tells me that weather once caught them on the long, non-stop, Kotabaru-Lae flight and they landed at deserted Gusap in the Markham, waited two hours for clearer weather down the valley to Lae, found none, and returned to Madang for the night, confusing Australian authorities very greatly. I think it a superb performance!

The Schouten Islands are visible, and we shall soon be over Japan, then Biak. The MAF has a plane now based on the South Coast in the Asmat Area at Josakor (?), and they have 8 pilots here! This is a good show. I met their chief pilot at the Sentani for a brief exchange of words, but nothing more. I always feel awkward with these dedicated fundamentalist missionaries who are more alien to me in spirit than any group of Natives in all New Guinea! They have been helpful and kind to me in much of my work, and I owe them much for their assistance. However, their brand of Christianity is so woefully intolerable to me that I cannot but feel hypocritical calling on them for help, hospitality or services of any kind.

April, 17, 1964... Biak, West Irian

My sojourn to Biak has been valuable beyond measure and personally rewarding. I have not done much nor been too active, but slowly I have met people, got to know Biak and Indonesian children, and made friends although here but two days. It is hot; water runs in the Hotel but a few hours daily, for the pumping system in Biak has broken down and only one pump is left. Parts and new pumps are coming from Holland, but not here yet. Thus, pumping time is rationed and divided throughout town. Food is fully Indonesian, but the deserts are served, while none were served during my sojourn at Kotabaru. Coffee and tea are omitted, usually. The Hotel is, however, in good order and repainted, and service is good. Thus, there has been an actual improvement here over the sudden slipshod condition the Hotel fell into in UN days. The same was true in Kotabaru... the Hotel was better kept and cared for and service was better than on my visit during UN turnover period.

I have written to Marion, Phil Poms who is in the army, Cyril Curtain and to Ilyusha Chumakov, but I have been unable to turn to more solid work. I have read through the American Anthropologist (No. 1, 1964) and Harpers (December 1963). In a book review I read a statement that...if the unexamined life is not worth living the un-lived life is not worthy of examination. I have never had this quaint play on words suggested before, and the implications are very great, the reply to the Socratic injunction the only rebuttal I have heard worth consideration.

The local situation is unraveling itself clearly and quickly. Papuans do not waste much time in complaining about the Indonesians, and within a few minutes of acquaintance, if no Indonesians are around, quickly tell of beatings and of the loss of consumer items for the shops and accuse the Indonesians of robbing the country of everything that was here or comes into the shops and sending it on to Indonesia. Their complaints are not political, for they seem not to have really grasped the possibility of political autonomy or its implications. However, the direct physical violence they have been exposed to is new to them, unknown under the post-war Dutch administration, and the phenomenon of their administrators competing with them for jobs and running off with the imported produce, leaving little or nothing for them is entirely new. They do not like it! Many have run to the Australian side, but Australia, claiming that they are not real political refugees, not subject to reprisals back home, sends them back still! The Australians claim they are simply seeking better wages, jobs, etc. and are not true political refugees. I believe that have failed to grasp the nature of most political refugees in the world in recent decades to assume that there are no reprisals taken back home is also a very naive view of things. In the Western Districts of Papua many villages have moved over to the Eastern side from West New Guinea, and these the Australians have permitted to stay. Many West Papuans are also working in missions and scattered throughout Australian New Guinea, but the vast majority of educated and highly trained who would leave have not been welcome and have been returned. They are, of course, badly needed here, but more often than not, the best jobs they could fill are filled by Indonesians.

The newspaper from Kotabaru is filled with propaganda against Malaysia and calls for volunteers for a guerrilla army to fight in Borneo. No one here really knows or cares what it is all about and neither Indonesians nor Papuans seem concerned. Biakers are particularly anti-Indonesian; they know it, the

Indonesian merchant who has survived I know not how, two families of American Missionaries of the Pentacostal Church, both from Seattle, Washington. They have been working on the mainland at Serui earlier and have come here in UN-administration time. They have been called here by the Native congregation with its own Biak-native pastor and are not themselves founders of the mission or church, but invited Bible School teachers. Now there is a new law against holding any classes for more than five persons without a permit and they need new permits for their Bible school classes and English lessons, yesterday night being the last session without the permit. They have an Australian associated with them in some way--or at least a friend--who has been here many years. Besides him, themselves and the Dutchman, and the Phillipine Shell Oil Company representative who has now left for Kotabaru there are not other "foreigners" in Biak, and they all insist they are autonomically regarded as spies.

April 18, 1964...Biak, West Irian

With the daily paper from Kotabaru screaming attack upon Malaysia, and the local people saying that after "Malaysia" Sukarno will turn to Australian New Guinea post haste, it will be most interesting to learn how firmly the U.S. and U.N. policy will oppose this new empire-builder. How Malaya can possibility give-in on "Malaysia" is incomprehensible to me, and if Britian and Australia do not give her full support then the final word on colonial irresponsibility will have been spoken. Since the Malaysian issue may decide also the fate of New Guinea, I am obviously most interested.

Our Garuda flight in an Electra to Djakarta via Macassar is delayed in departure by about two hours--if that is all, I shall be most fortunate. The plane is here, at least, and I am booked on board at the moment. Captain Tono Amboro, Police Pilot for the government police force and stationed at Sentani, has flown in. He shouted greetings to me as he climbed the tower at Mokmer Airport here for a radio message, told me to wait his descent, and when he came down we exchanged addresses seated on the curbstone outside the air terminal. He is happy, lively fellow of very friendly personality. I would enjoy him as a visitor in the U.S. very greatly. There is surely a more outwardly friendly manner about the Indonesians than about the Dutch, and were it not for the economic and technical poverty of Indonesia, they would be better suited to the interests of the Papuans. Johann Kalumata, the likewise-English-speaking director of Hotel Irian (new name for the old KLM Hotel) apologizes for his Dutch name, and goes far out of his way to be friendly.

General Achmad Yani, No.2 General of Indonesia, has arrived here at Biak, is en route to Kotabaru, and all the festivities of the day of my arrival were for him. He arrived a day late, however, in the Army Electra which came in yesterday. I am told there is a new uprising in progress in South Celebes. It is south of Macassar, and does not involve Macassar where we shall land. This is the age of great States and the U.S., Canada, USSR, and many others have only clung together by grave effort on the part of "empire builders" and statesmen, often with civil war part of the history. Whether smaller ethnic units can best fend for themselves in large Republics, is a perplexing question. It is surely unsolvable in our generation, and small minority groups will suffer inordinately for the rest of this generation as a part of

the growing pains of these "empires", call them "republics" if one will. Neither have the Soviet Union nor Canada nor the U.S.A. fully solved the States-rights versus federal or central government issues, and it is expecting much of these new republics to have done so. One cannot help thinking longingly, however, of the small European nations such as Andorra, Luxemburg, Switzerland, Denmark, Norway, Finland--but even their freedom has been bloody. I suspect that we can work more easily and with greater friendship with the Indonesian administrators than with the Dutch. It is only recognition that they can do less for the Papuans than did the Dutch that disturbs me.

I am very glad I have come by this route. Hotel prices are exorbitant for what one gets. Thus, room is 26 IBRp a night, with meals running another 20-25 IBRp. Meals are Indonesian, adequate, but far from fancy or really good--one could get such lunch or supper in the U.S. for \$1.00 and one pays here over \$3.00! Breakfast is of the 30-50¢ sort, and costs almost \$2.00! The \$7.50 bed is worth hardly \$3.00. Thus, it is inconceivable that the unsubsidized Papuan could avail himself of anything of this sort....hardly the Indonesian. Everyone who does is "government subsidized"! The Hotel staff, but not the administrative staff, is composed of Biakers, and they lounge about and play through their day of work in a rather carefree manner. Canned soda or beer costs over 1 IBRp and thus is more expensive than in the U.S., but some Biakers are at the Bar drinking....only a few however. At best an Indonesian salary would purchase in IBRps what a similar salaried job in the U.S. would provide in dollars...and even food and lodging are more expensive than in the U.S.! The official exchange rate is 3.54 IBRp per \$1.00 U.S., keeping the currency pegged at the Dutch Guilder until the country is bled dry of what the Dutch left--it is nearly there already.!

My afternoons and evenings with Sutarno on my first day here and with Beni and Ordjems have been the most rewarding experiences of the West Irian sojourn, but although they color my whole opinion of the country and people, they leave little for journal discussion in the "open" journal I am now keeping.

April 19, 1964...Macassar, Celebes

Beni and Ordjems came to the airstrip after school, for our Garuda Electra was almost three hours late in take-off. They had with them a group of school-mates, and I spent a good hour talking with them, meeting their friends. It was a fine surprise to see this send-off delegation, to have them all shaking hands with me, saying goodbye, and waving interminably as I boarded the plane and waited for take off. Very few departing had much of a send off, in spite of our full plane, and none as effusive. I was pleased.

We flew toward the New Guinea Mainland, over the island to the southern coast of the Vogelkopf, and then across Indonesian waters to Makassar in the Celebes. There we stopped for about an hour, during which I wandered through the terminal, studied the fine models of beautiful Celebes traditional houses selling for more Indonesian money than I was carrying, and finally I sat outside typing Barua Kuk notes while a large crowd of Makassar children crowded about. To have paid attention to them, smiled at them or tried to talk with them was none too effective in establishing contact, whereas when I turned to my own curious work, they flocked about no longer suspicious or

intimidated, as I kept engrossed in my work but occasionally gave them a nod or a joking pat on the head, I soon found a few dozen urchins of 6 through 16, perhaps, pushing inquiringly about, some leaning against me, and even following my typing with their fingers. I finally stopped and pointing to scars, sores, and keloids--in high incidence in the group--began getting mirthful accounts of injuries and illnesses. When we finally boarded again, I had a second delegation sending me off waving, and shouting parting greetings, and again found myself unique on our flight.--Thus, the day was good.

The thickly settled flatlands of the Celebes, the rice fields and farms contrasted greatly with New Guinea--the Melanesians may be gardeners but they are not peasants. They do not produce food for commercial gain or to feed others but themselves. This is a key matter in their different personalities, I feel sure. Unlike the rest of the South Pacific Islands westward and northward, the population of New Guinea is not of peasant mentality. This has much to do with the ease they can suddenly enter the modern world from the Mesolithic or Neolithic cultures they inhabit, and their readiness for change and innovation!

We arrived at Djarkarta in early evening. I have been seated beside Mr. , the American Seventh Day Adventist Mission head living now in Kotabaru. He told me much about the local Kotabaru situation during the past year, but himself did not know West New Guinea earlier and has not yet seen much of it. He is, however, interested as was Oosterwaal, in the Membramo River region and has already made an expedition up the Membramo and a long walk through the hinterland of Sarmi. Thus, from him I got much needed specific information about the villages and post and mission stations along the Membramo and the problems of the region. It will surely be through contact with him that I must negotiate the Membramo trip and entry into the region west of the Membramo and north of the Ruffaer if we are to ever explore it. The S.D.A.'s have mission teachers in small villages up the Membramo already!

There is so little contact between the Protestant and Catholic Missions or between either of these and the S.D.A.'s that Mr. complains that he has had virtually no social contact with the other missionaries, and has not even met most of the missionaries supplied by the MAF pilots. He has a pilot's license himself. He tells me that the thirty foot boat they took from Sarmi to the Membramo was too small at the Membramo mouth. They were forced to turn back, trying to get out of the river, and when they made it the following day it was hazardous at sea.

I have left West Irian with mixed feelings. The Indonesians are certainly not the right people to try to bring the Melanesians into the modern world or to develop New Guinea. They offer almost 100,000,000 people who stand in the way of the under 1,000,000 New Guineans by competing with them for educational and economic advantages. Competitors they have not had previously under Dutch administration! Yet, the Indonesians are pleasant, helpful, and friendly people.

April 20, 1964...Djarkarta, Indonesia

The sign draped in a huge banner across the International Air terminal here: Welcome Fighting Afro-Asian Film Workers. It spells the whole tone of Djakarta...insurgent, resurgent, fighting, belligerent, and on the road to empire--all to the total disregard of the squallor, filth, graft, and dishonesty, inefficiency, and poverty and inflation of the country. The U.S. Embassy people have hardly contemplated the possibility of New Guinea ever being released as autonomous, and are even amused by the idea. They claim that a plebiscite is impossible, and tell me that Djakarta has already proclaimed that there will be none. It is best to settle for a backward, Indonesian-dominated half of the island which, as a result, will perhaps be better preserved anthropologically than the eastern half but in which economic development and educational advancement of the Melanesians will come to a standstill. However, it may be more possible, with appropriate bakshish and manoeuvring, to actually do more than under the Dutch, and to bring Melanesian children abroad with appropriate red tape.

The river flowing through the center of town, with the main business street traffic passing on either side of its narrow canal, is revolting and unchanged---muddy and filthy and stinking. In the early morning men, women, and children are seen stripping naked all along it in plain view of all traffic and pedestrians, and bathing while others with equal disregard for modesty or privacy, defecate from the wall or from steps or from the riverside itself into the water only a few meters away from the bathers. At almost any site along the river wall one can watch many people defecating simultaneously in the early morning while dozens of nude bathers enter and emerge from the water, dry, and dress oblivious to the onlookers. Dishes from the street food vendors carts from cafes are being washed in the same water adjacent to the defecators and bathers and these food dispensers soak their vegetables in the water in basket to keep them "fresh". Nowhere in all Melanesia would one find such disregard for anal modesty, only rarely for nudity, and certainly nowhere such disregard for contamination of water used in washing and food cleaning and drinking. Every few minutes one can note others imbibing the very same contaminated water of the ebullitions. It would be bad enough were the river swift and ample, but it is a slow, shallow, stagnant stream.

"Crush Malaysia" banners and signs are everywhere and a militant anti-Malaysia campaign is in progress. The Kotabaru newspaper in the West Irian disregarded local news for long accounts of the progress of the "Crush Malaysia" campaign, where Melanesians neither know what or where is Malaysia nor of the existence of Borneo and its political divisions: Sarawak, North Borneo (Sabah), Brunei, and Kalimantan.

The medical personnel and political personnel at our American Embassy are in general soon disgusted with local politics and with local Indonesian arrogance and bravado, dishonesty and inefficiency and ineptness, and I find them very anti-Indonesian, I have never before found an Embassy staff so unsympathetic and antagonistic to the government with which they work. It is apparently understandable, and other visiting foreigners seem to echo the matter, I suspect that outside of Djakarta things would be better, but hear they are nearly intolerable from the foreigners point of view. Indonesia is making a real effort to lead and "Afro-Asian block", and in making this effort is violently anti-Western and, strangely, also anti-Chinese, while yet being nearly Communist in political organization and methods, yet refusing to accept



the label of Communism. To do so would mean a final revolt of Sumatra and Celebes, and perhaps other islands.

It is a fascinating land and one I shall enjoy working in...but one must come prepared for extreme frustrations. Long term assignment here or frustrated attempts to accomplish anything would be maddening, but if one settles mentally for this situation before hand, things should go smoothly and even surprisingly well.



Return Home

Singapore - Bangkok, Thailand - New Delhi, India -  
Kabul, Afghanistan - Tashkent and Moscow, USSR -  
and Paris, France to Washington, D.C.

April 23, 1964 to May 4, 1964



April 23, 1964...Singapore to Bangkok-Cathay Pacific Flight

Having spent another two nights with the Lims, and having managed to renew a gap of over a year of lapsed conversation and sharing of ideas, I am happy as I fly to Bangkok. Kok Ann, Kheng, Su Min, Sing Po, Su Hui, and Sing Yeun all came to see me off on this early morning flight. We have had a fine time together. Only Su Chong was absent--he is away with a church choir on a two weeks singing tour of the Federation, and they are now at Penang. I am very very sorry to have missed him.

Su Min, now driving, has taken me all about town shopping, looking for books, and visiting handicraft shops. I have had a long conference with Kok Ann and with Lee, Chang, Goldsmith (from Audy's groups but working with Kok Ann) and others in the Department of Bacteriology about possible studies here with the Punans of Sarawak when Indonesian difficulties have subsided and with the Negrito aborigines of the Malay-Thai border area in Upper Perak beginning this year. We have set the plan. I have told them of the presence of Group C Arbor antibody in this group which we found in the old collection of specimens I made in 1958, and that is already a good virus problem to get started on and to justify their participation.

I had a cable here from Marion urging me to be back by the 30th for personal intercession with Mbagintao's Permanent Residence Permit, which he might otherwise not get. This has been the major cause of anxiety since starting homeward, but I cannot see what a few days will do, and have cabled her with the help of the US Consulate to urge delay until my return on or about May 7!

I am desperately worried about this matter, for return to New Guinea shows clearly how impossible it is to return Mbagintao there for many years. Best, if he can remain many years in the U.S. and then work for his country from there out! It will be better for New Guinea and for him. I would sooner investigate France, Sweden, Germany and African States for him and further education than return him, and this would cost me inordinately. Thus, it is most important that I get his legal status straightened out properly.

Just beyond Singapore, Malaya below us in a vast carpet of forest green with no towns or roads. However, from time to time good roads, villages and towns appear and clearly indicate that it is not the same vast forested flatlands. The coastal strip is all settled. The Negritos of Malaya whom Kheng and I visited outside of Girik in 1958 were so Melanesian in appearance in appearance that I am most intrigued at the chance of getting back among them soon again. This we shall have to do quickly, now. The Punan situation may well be ruined by the current conflict, by guerrilla troops, government military activity, and increased penetration to their homeland from both Sarawak and Indonesian Kalimantan sides.

April 24, 1964...Bangkok, Thailand

Miki and Athos Ravelle have been transferred to the Philippine Office of the Peace Corps, and the Peace Corps physician. Dr. Lea, here in Bangkok, has taken me out for supper at a fine Chinese restaurant, and we have talked all evening, until late. I have done, as usual, most of the talking,

and I am a bit chagrined with myself, for I might have learned more by listening more. There is, from effuse catharsis, the advantage that when others reply, they tend to reply in greater depth and intensity, and one has less trite garbage to listen to. However, this has been a relatively sterile visit to Thailand. I purchased a few sticks of ivory for paper weights, two Thai silk shirts for myself, and a book on the aboriginal peoples and hill tribes of Siam. Dr. Bruce Halstead was also absent, in India, where he was born, and thus I did not even pay a visit to the Seato Laboratories. Instead I caught up on much needed sleep, visited shops, and finally had a visit from Sargeant who has arrived from Walter Reed Army Institute of Research only 5 weeks ago with his family to work at the Seato Virus Laboratory. Here in Bangkok the Japanese are equipping and helping staff a second virus laboratory at an Institute of Virology. They are working mostly on Japanese B Encephalitis, whereas the Seato Virus Laboratory is still working on hemorrhagic fever. The Singapore cases of hemorrhagic fever are now more serious, more often in children, and often fatal; whereas, in the early years, they were mostly in adults and mostly mild. Lim Kok Ann in Singapore and his group continue to work on them, isolate Dengue I and II but no Type A Chikungunya-like viruses such as they often isolate here in Bangkok.

Dr. Lea takes me to visit a Thai neurosurgeon who has trained for 9 years in the United States and is married to an American girl. The family has been back here for only two years, and he now plans to return to the U.S. again, later this year. The educated Thais are very, very Western in speech, behavior and ideas and they tend to be American more than any of the other Western Cultural background. Thailand remains a wealthy, pleasant, and pleasing land in Southeast Asia, and the personality of the Thai children is so blandly pleasant, so friendly, and so receptive of foreigners that it is very comfortable to be with them.

I would like very much to work here in Thailand in local Thai pediatrics, especially out in the rural regions. When we launch the study of the Malay-Thai border region Negrito aborigines we may work both on the Malay and on the Thai side of the borders, for these people live in the jungles on both sides. They are treated briefly in the last pages of the book I have purchased on the Hill Tribes and aboriginal groups of Thailand, and their pictures once again remind me so much of Melanesians and return my thoughts to my brief sojourn among them that I am determined not to put off very long, a return study. I have told Lim of the presence of Group C Arbor virus antibody among them and this alone is full justification for a large-scale Arbor Virus study with the group. His laboratory can give us much logistic support.

Here in Bangkok, Scott Halstead is studying the high incidence of bladder stones as a side line, and his interest brings him to some small towns where the incidence is extraordinarily high. This high frequency of vesicular calculi in Thailand is not unlike that also found in Iran Afghanistan and much of the Middle East.

April 25, 1964...New Delhi, India

The most important finding of my return sojourn in India is that the Indian Airlines are flying regularly once a week each Friday morning, from Calcutta via Rangoon (Operational flight with no off-loading or on-loading of

passengers) to the Andaman Islands--Port Blair. I am now told that the flight will be discontinued sometime in May, but the apparent open flight there without the need of special permission and papers is most interesting and pleasing to learn. I do not know how one would get to Little Andaman from the main island, but it looks now as if Andaman island studies will be possible. The discontinuation of the flight may again leave them very inaccessible, but I shall hope that some other flight, at least monthly, may replace it. I had not known that it was possible to fly to the Andamans at all. The cost of the round trip is 475 rupees, or under \$100 U.S.!

I have wandered extensively about New Delhi again, this time spending several hours wandering through the ruin of Purana Qila. The whole vast enclosure was absolutely vacant, and in three hours of wandering I met not a soul. The whole interior was obviously a large residential area--perhaps for government or army people--of very low standards until recently when it has been fully evacuated. It is now left a deserted fortress and a deserted town within! The walls tower over the New Delhi Zoo, and I was very pleased to have given my time to the Purana Qila than to the Zoo. New Delhi changes little each time I return, and the begging children are no fewer nor any less insistent than years ago. I am most intrigued at the reaction of these dirty urchins who follow one anywhere and ingratiate themselves by any and every means possible just to get bakshis--and when given something extravagant, instead of desisting, they immediately spot this as a possibility for a real "kill", and press harder for more. Thus, trying out what would happen with a full rupee, I found my newsboy peddler immediately impossibly demanding for another rupee--so surprised was he at the rupee which probably exceeded what he had ever before been given and so sure was he that here he had an unlimited sucker. This same reaction of persistent and more outrageous begging and demanding in response to an unexpectedly large bakshish I have seen several times. It indicates just how serious and professional these small boys and girls take their begging and how little sincere gratitude lies behind any gift received. It is a way of life they are not ashamed of and learn to execute with thespian skill.

I visited the American Embassy today soon after arriving here and asked the Indian woman receptionist for the Scientific and Cultural attache. He arrived to see me only after I had waited a half hour or more, and then I launched into a long exposition of our work on genetic studies of vanishing or changing primitive groups and our desire to know more about the Andaman Islands, logistic and political problems of working there and of Indians who might collaborate with us. Only after a fifteen minute harangue did he slowly interrupt me, and inform me that I needed a scientific and cultural attache which we do not have here in India and that he was the agricultural attache. Thus, having plunged into error, and inflicted my harangue upon him for the error of the receptionist, he suggested that he could try to find some of the information I needed. I then asked about Mr. Davis, the agricultural attachee I had met here about 2 years ago, and this further embarrassed the situation, forcing my listener to admit that he was the deputy or assistant agricultural attachee, not the attachee, who is Mr. Davis still. Thus, a half-hour discussion resulted in very little but some rather awkward disclosures. Finally he told me of Dr. C. S. Houston, director of the Peace Corps here, yet a medical doctor, and I telephoned the Peace Corps, spoke with Dr. Houston and made an appointment for 3 p.m. Dr. Houston was a quiet administrator of the Peace Corps who gave me over an hour for discussions and requests, and when I

was leaving, he agreed to dig up all he could on the logistic problems with the Andamans. He would welcome going himself, but he has no valid excuse.

April 25, 1964...Kabul, Afghanistan

Amazed at the cement runways, modern air terminal, waiting taxis, efficient immigrations check on documents, and lack of customs control--astonished at the almost total European dress and girls and women out of purdah--surprised at the telephone connection with town from the airport (Soviet phones), and the display of modern aircraft on the field--and astounded at the bulldozed removal of much, nay most, of the Kabul I knew and the errection of a modern city in its place. Yet in the chilly air of late April, surrounded by the snow-capped ranges on every side, I still found the long thin Aryan faces, the round Turkomen faces with sharp epicanthic folds, the wise bearded severe faces of mountaineers, and the strange for me unassignable "Mongolian" features and rejoiced to be back in the Asian country I love most. Thailand and Iran are for me countries of fond memories and stimulating wonder. Afghanistan is a country I love with passion, New Guinea of Australasia, Mexico of North America, Russia of Europe, and Afghanistan of Asia, Bolivia of South America.

Tante Irene and Uncle Carleton are not here, and when I finally do ride into town to the Hotel Kabul, I telephone Drs. Blumhagen from ther and the medical couple quickly came to fetch me in their care, tell me that Uncle and Tante are off to Peshawar and expected back tomorrow, and bring me to their home for lunch. They book me into the USOM Staff House where I have a huge, luxurious four-bed room to myself in the annex, one of the luxurious and extravagant "modern European" style houses the Afghans have been building at a fierce rate for rental at fierce prices to European Embassies and their staffs. With a woolen shirt and my wool suit, I am still sharply chilly in the crisp mountain air of Kabul, and this for the first time in over a year is very pleasant. The atmosphere of change is bewildering here. Not a single gandhi, no camels, the Bazar gone, and on its now vacant former sites, isolated beautiful formerly hidden mosques and tombs and strange buildings, including one log building said to be "Finnish" have been left as they were "discovered" during the razing. Russian and American buses rush about the paved streets and stop nostalgically to look at a brilliantly and elaborately floral-design painted motor-driven truck-bus which appears unique and which was not many years ago the only type of passenger vehicle one could find in town.

In the afternoon Dr. Blumhagen and Miss, an American nurse work here, took me to the rug bazar, now moved to new quarters, where we looked at carpets, camel bags and robes, gihlims, and other types of rugs for many hours. We priced, haggled, and bargained. Most prices could be reduced by a quarter and some even a half by sufficient haggling, and the price left was still perhaps twice the minimum that the merchant could settle for. I tried to find further Kashkaris of the type of the two I bought here on my last visit, and found one cut up decorating a wall in one shop. The dealer promised to find new, intact ones for me. I purchased from him a huge old camel bag, in need of repair, which he said he would have done in two to three days, and for it I have paid 350 Afghanis from his original demand of 500 (300 + 50 for repairs). It is a wonderful buy. In another shop I found two fine



Kashkari gihlims very much like the two I now have, and these I determined to buy at any price. First prices were 1500 and 1400 Afghanis, and this we finally reduced to 2000 Afghanis for the two, after very much haggling. I paid \$35.00 U.S. plus 100 Afghanis which is, in all, about 2000 Afghanis at the rate of 57 Afghanis/U.S.--the highest "bazar" exchange rate I have yet heard quoted. Thus I was very pleased and so was the dealer... both of us thinking we have made a good "deal"! High quality Turkomens are hard--very hard--to find. Real Mauris (Herat Turkomen) have not yet been located by us. They run \$150 to \$200 for small ones of the sort I already have at home, I am told! I will surely buy one if I can find one I like! Thus far my purchases are strange, exotic and enviable.

In India I made a very disturbing error for which I have been upbraiding myself a long while. I purchased at the Janpath Hotel book store an edition of the Kama Shulpa which has recently come out, for 35 Rp, handing the bookseller 30 Rp for change. Before he gave me change, we went on to discuss other books, including the "banned" volume of Raj Mulk Anand's Kama Kala published in 1958 by Nagel Publishers in Geneva wherein fine photographs of all major erotic sculptures of \_\_\_\_\_ are shown, including even those of sodomy, fellatio, and other perversions and odd postures of dalliance. This they want 170-200 Rp for in the Indian shops! I then went to finish my purchase of the Kama Shulpa, only to find the dealer waiting for money! I gave him 30 Rp more, got 5 Rp change and then slowly, with misgivings, realized that I had paid him 30 Rp twice. I timidly went off to check my cash and make sure, slowly convinced myself that this I had done, and returned to point this out to him, only to find him, as might be expected, graciously polite, counting over his own money, and assuring me assuredly that I had not so overpaid him. There was nothing to do but reiterate my point, accept his reassurance of my error, and finally withdraw, a completely "hooked sucker"! Ten years ago I should have been much more righteously indignant and angry with myself. But now, spoiled by a life of luxury and abundance, I find the matter rather amusing and instructive.

In the Delhi Dairy for April 17-23, 1964, the tourist pamphlet published weekly, I find an article of feature on two New Guinea Eastern Highland boys living in Perth with Rev R.O. Pearson and his wife, former New Guinea missionaries. They are Inagroi Begalanabi, 13, and Metikau Ekutabi, 14, both said to be "coffee planters' sons" from the Eastern Highlands. They are attending Applecross Primary School, both in the fourth grade. I shall surely suggest that Mbagintao write them and look them up. There is a picture of them, and, like Mbagintao, they have outgrown their earlier age estimate and look more 15 and 16 than 13 and 14!

I have only just arrived and I am already worrying about drawing myself away from this fair land. I would head for Bahmian and start travelling westward. I would head for the Panshir valley and start climbing across the pass for Badakhshan. I would head for Faizabad and start for the Wakhan corridor...these are the places I want to leisurely roam and enjoy once again, and find it difficult to realize that I cannot now take the time....and life is too short, too fleeting to delay and postpone these adventures and ever experience them. Similarly, I all but flew to Calcutta and hopped the plane to the Andamans as I should have done. The flight may be suspended, as they threaten, and all such chance may be lost for me forever. My cautious Puritanistic diligence so applauded back home by my colleagues who would never admit I had any, but would so like to see me enclaved by more of it, leaves me

with no satisfaction at all and a sense of moral and intellectual dishonesty. The "discipline" which brings me back "as expected", and binds me to conventional restraints is the disciplinary enslavement to mediocrity and lack of creative individuality and even a bit of it, such as I now possess on my homeward journey, is too much!

April 28, 1964.....Kabul, Afghanistan

We have made a very interesting trip, taking all afternoon, from an 11:30 a.m. departure from Kabul to a return at about 8:00 p.m.. Uncle and Tante are exhausted as I am although most of the day was spent in the car. I wanted to see Istalif and if at all possible, visit the Panshir Valley once again. To my surprise, I found the road north from Kabul to the Hindu Kush is now double-landed and paved with asphalt for over 50 miles from Kabul, to Charikar and Jabal-us-Siraj where the road further northward is closed. It is heading for the Salang Pass (12,000 feet) just below which it will tunnel through the ranges for several miles. This direct route across the Hindu Kush will replace the long 300 km bend (80km west, 80 km north, 90 km east, 50 km north) which now connects Charikar with Puli Khumri over the Kharzar Pass (15,762 feet). This Kharzar Pass which we took 3 or 4 times in our long tour of northern Afghanistan in 1954, will now be seldom used once the paved highway to the Russian side is finished by the Russians.

We sped along Qal'eh Murad and Qarabagh, passed the Istalif turnoff to Charikar and then through Charikar on the still paved road to Jabal-us-Siraj where there is a huge iron factory. Here the pavement ends, but work is in progress. We crossed here a tributary of the Panshir and then took a road along the foothills of the ranges which overlooked the whole vast Charikar valley on to the city of Gulbahar where there is a large textile mill. Here there are fine formal gardens with a tree-filled park beside the rushing Panshir River and here we stopped to stroll through the iris gardens and watch the rushing, beautiful Panshir. Later we crossed the river after passing through the Gulbahar bazaar and visited the factory where there is a display shop and wholesale textile outlet. Tante Irene and Mrs. \_\_\_\_\_ with us both bought many yards of fabric for bed spreads, curtains, etc. Beyond the textile mill the road turns south-eastward and passes on through Churchol to Sarobi, some 80 kilometers from Kabul on the Kabul to Jalalabad road. We did not want to make this circuit to Kabul, but the road along the Lagao Darra into which the Panshir River flows down to meet the Kabul River near Sarobi is the old silk route from Peshawar and Lahore to the Hindu-Kush and across it. This old route did not pass through Kabul!

After surveying the wholesale outlet shop and the town of Gulbahar, we returned across the bridge over the Panshir through the bazaar to the Panshir River road which we then followed for a few miles to the gorge. Here uncle was worried about taking the car up further, although it would have been no real problem, and so at the great gorge, where a diversion channel for the river is being built, presumably for dam construction at this site. I would have been very, very happy to have gone up further, and I am now determined to do so on my return to Afghanistan, crossing all the way to Badakhshan, Jurm and Faizabad! However, we turned back, after a half hour with children and adult local people along the road. Boys had caught small birds which they wanted to sell to us, and one had a large partridge-like bird in a cage. They were all very friendly, wanted their pictures taken, and joked with us

and made bids for our attention for nearly an hour, when we were forced to leave. I would have been so happy to have stayed here alone, to have proceeded up the Panshir valley on foot, making friends and acquaintances along the way. This time, again, I have no further time.

Back at the Gulbahar bazaar, we stopped before a shop selling Istalif blue glazed china-ware and here we purchased several large pieces for a few pennies each. A crowd of over a dozen boys crowded about us, and I talked to them at length, taking pictures of some of them. They were all most friendly and interested in us.

Finally toward sunset, we set our course back for Kabul, and we travelled the direct valley route from Gulbahar to Charikar and then back down the paved highway to Kabul.

My ambition was to make the trip all the way up the Panshir valley this visit, to cross the Anjuman Pass (13,860 feet) to Badakhshan, and to come out at Jurm and Faizabad. I now have this before me for the next visit, more sure than before of its ease and feasibility. Beyond Gulbahar, at the bottom of the Panshir valley, lie Ruka, Pashgur, and then Rais Baba before the Anjuman Pass. On the far side one descends to Anjumani-i-Khurd, Bala Kuran, Shahr Munjan, Skorzar, and then down the Kokcha River valley headwaters to Ribat-i-Pain, Iskan and Jurm to Baral where the Warduj joins the main Kokcha headwater stream. I want also to follow up the Warduj again to Zebak, Ishkashim, Ishtragh, Isharaka, Qal eh Panja, Vakhan, Qala Wust, Rauchau, Shard-i-Wakhan, Langar, Baikar, Buzai, Gumbao, Tas Tere Beit and the 16,000 foot pass to Tigramso in China! This is left for the future, and I am less concerned with traversing it all than with spending time and living with the people of some of these small towns, or better, the yet smaller towns I cannot find on the maps. Dr. Khayume told me of his trip to Peking and his discussions with Chou-en-lai and others about the Afghan-Chinese 60 km. of frontier. The Chinese tried hard to be amicable and to avoid the impressions created with their frontier violations nearby with India. They also offered to build the road through the Wakhan to restore and improve the old silk and spice route to China across northern Afghanistan!

April 29, 1964...Moscow, USSR

A long, long day....Kabul-Tashkent-Moscow....with an hour and a half at Tashkent airport, dinner there, and a clear day flight into and out of Tashkent, giving excellent airviews of the entire Fergana valley and the city. I wanted desperately to see Vlada Mazurin, but could not take time off for a further day in Tashkent without endangering meetings with Zilber and Chumakovs and also missing my Stockholm connection. Thus, I have passed through without seeing him and I am extremely sorry. He has no telephone and so I could not phone. I did not get a telegram off to Mikhail Petrovich, but this resulted in his coming to the airport on the far side of town just after I left for town by bus, thus missing him. I have now been talking to Marina Konstantinovna on the phone; she has a new son born March 7th, and named Alyosha! She has invited me to stay at the Institute, but that is far out and the family is not there but in their crowded apartment....thus, I have moved to hotel Ostankino, A Hotel little-used by Western tourists and one far to the north of the city. I have no Intourist cards and have not registered with

Intourist. Thus, I came in by bus for 60 kopeks, walked to the hotel Metropol from Sverdlova place, and found that all Moscow Hotels were very, very crowded, the May 1st celebrations being upon the nation. They found me a room here and I took a cab out. Marina Konstantinovna has found Mikhail Petrovich on the phone, he is engaged all morning and will call for me in the afternoon after I have seen Dr. Zilber at Gamaleia Institute. If this works out, the Moscow sojourn will be most successful. I am, furthermore, very anxious to see Ilyusha, Kostia and Peotr once again.

Here at the hotel I have rested and it is already almost midnight! Thus, I have missed the chance of seeing Moscow by night except for the slow and long ride in, Gorkii Prospekt, and then out here from the center of town. I have also found the restaurant closed and there is no room service here, but the service girls on the floor have offered me tea from their late night meal, and have now given me two cups of tea, an egg and bread and cheese, all forced upon me from their own supper!

April 30, 1964, Moscow, USSR

As I get my key from the floor-supervisor here at Gastinitza Ostankino, the woman at the desk comments on my excellent Russian....after a whole evening and afternoon of struggle with the language, butchering it dreadfully, but getting across complex ideas of virology, immunology, anthropology, genetics, ethnology, and New Guinea-Indonesian politics to Mikhail Petrovich I pour out ungrammatical Russian as though I spoke it well, and to my surprise I seem to get my meaning across even without the grammar. Actually, I managed to follow everything of our complex conversation by asking for repetition and managed to communicate everything by multiple circumlocutions, when necessary, so that Mikhail Petrovich and I managed to converse extensively for the past eight hours! Perhaps the five glasses of vodka have helped considerably--and these on top of the two glasses of Soviet champagne at Hotel Metropol this afternoon.

I visited Institut Epidemiologii i Mikrobiologii im. Gamaleia this morning, finding my way there by trolley bus, and three different subway trains (two changes), and then a further bus, only to find Professor Zilber absent on leave somewhere. I then found Professor Viktor Zhdanov at his near-by Institut Virusologii im. Ivanovskogo and he gave me the entire morning. He is building a huge Virusological Institute, erecting buildings and organizing staff, and even hopes to bring Soloviev into his "Empire". However, he is keeping abreast of laboratory advances, and remains a practicing experimental virologist, proud to have relinquished his political position (Deputy Minister of Health of the USSR). We discussed virus work at his Institute, entero, respiratory, arbo, and hepatitis virus work, as well as problems of trachoma vaccine, measles vaccine trials, neurotropic viruses, and Zilber's program on slow virus infections and ALS. Zhdanov goes to great lengths to discuss the work on virus structure in his new Institute, to give me his recent reprints, including one "philosophical" paper in which he is differing with Engles, no less, in basic philosophical propositions. He also gives me a special English-language booklet on his new Institute. Finally, after noonhour, we leave together by taxi, and after taking him home, I go to Gorkii Avenue to the bookstores. Zhdanov pays the taxi for all my further

travel, but I find it advisable to release the cab long before I have exhausted his prepaid funds for my travel.

In a Bukinisticheskii Magazine on Gorkii Avenue I find, to my sudden and utter surprise, the full five volume (6-binding, for the third volume is in two bindings) edition of the complete works of N.N. Miklukho-Maklai which have been out of print for a decade and which, for over five years I have hunted for, since I am missing the first volume in my set at home. I quickly mailed out the set, keeping volume one with me, and then, in the Akademii Kniga store on the Gorkii. I hunted for the latest issues of the Trudy Instituta the latest issued. I also found a two volumes issue of Miklukho-Maklai. Cost of the volumes was only 14.2 rubles, while postage cost about 3.50 rubles for three packages of the books, each nearly three kg. If this all gets there, I shall have been most fortunate in a brief book-hunting jaunt. Mikhail Petrovich went to Ostankino to pick me up, and I had to telephone there to have him redirected to Metropol where I arrived at 4 P.M. when he was to meet me. My call to the Chumakov home was too late to stop him on his long trek across Metropol. Since I am not on Intourist tour, I am a strange and completely "unserved" guest of the USSR. They cannot accommodate me at Intourist hotels, and yesterday found me a room at Ostankino, which is far from the luxury of some of the other hotels, but which is most interesting, it being a non-western tourist accommodating hotel. My room here is ample, with bath, and clean and neat. The hotel offers no room service, and few additional services. It is quite satisfactory, however, and I have no complaints. There are some Frenchmen here, several Indians, a few Africans and many Russians.

Mikhail Petrovich tells me of all the plans for the American NINDB Soviet-Exchange team--largely suggested by me--which is to arrive on the 15-17 May: Kurland, Hotchins, Koprowski, Brody, Hadlow, Johnson! He tells me, as does Zhdanov, that Solovief's isolation of hemorrhagic fever with renal syndrome virus is very, very questionable, and that the Mengo-virus-like isolates from Vyliusk Encephalitis (from Vyliusk town on the Viliusk River tributary of the Lena River in Siberia, near Yakutsk) is likewise of questionable significance--few subjects have antibodies! I am carrying with me all four large and two small Afghan rugs which I purchased in Kabule. I anticipate considerable difficulty in getting them out of the Soviet Union. They may be regarded as ancient, antique, or art objects here, and thus customs impounded. I asked them to record their entry at Tashkent, but was waved on through customs without real care or interest. I neglected to make a real issue of their existence and now I can see the real possibility of export difficulty. I can prove that I did not stop in Tashkent, and went right on through by Aeroflot to Moscow, but the days of transit in Moscow may leave them sceptical and may thus cost me the rugs. It will be a great disappointment if this is the case, but all I can do now is to try to see what happens.

I now learn that my flight out on the 2nd is impossible, there being no Stockholm flight then. However, there is one on the 3rd, and Intourist says they can give me a letter extending my stay because of flight delay. I shall be anxious and unsure until I am finally fly in to Sweden!

The number of things I have purchased and sent off during my travels from New Guinea is considerable, and now I am only concerned about those I am

carrying with me from Afghanistan. Should there be difficulty, I can try to get them to Mikhail Petrovich or to delay my flight a day to try to get special exit permission....but all this would be a great problem with resulting delay and also cause me visa problems. I hope all works out well.

Chumakov lives in a five room apartment with ample bath and kitchen, and is among the more fortunate in having such a home. The three boys share a large room and it is packed with books. Ilyusha has small guppies in several aquariums and he is doing genetic breeding studies, even using mutagenic agents on them. He is also studying a full course of biochemistry in the Young Pioneers house near by which has a four hour biochemistry session weekly. The text is a full first-course book! He is now about six feet tall, thin and gangly, and a handsome 14 1/2 year old. Peotr and Konstantin (13 and 12 years old, respectively, and both in the sixth grade--since Peotr started school a year later than Konstantin) are very, very Russian appearing youngsters. The family has, like most Soviet families, a television set. This evening we watch a story of the Czarist-day youth in a dreadfully poor village of one of the Soviet heroes of science, a physicist. The success story, highly politically colored, is technically poorly executed, dull and inexpertly presented, but fascinates the boys, and is the sort of national pride-giving story on which the Soviet youths are fed. It does have its effects, inspiring them to science and studies, to ambitious application and devotion to higher learning and pride in accomplishments of their country and opportunities provided to them by it. What is left out is any view of the rest of the world, the non-Soviet accomplishments and the progress and possibilities in the Western World.

When I came in at Tashkent customs officials asked if I had any "foreign literature", for that is what is most avidly censored and excluded. Ilyusha has received only two issues of the year's subscription I gave him to NATURAL HISTORY magazine; others do not arrive!

May 1, 1964...Moscow, USSR

Marina Konstantinovna has telephoned to advise me to find a television set and look at the parade through Red Square as the boys are viewing it at home. Thereafter they and Mikhail Petrovich will come for me to visit the Botanical Gardens and then the USSR Exhibition of Economic Achievement.--I have seen the parade and demonstration in Red Square on the hotel television, one small set being set up in a special room in a second part of the hotel--this vast, rambling hotel is divided into "Korpus" -es, and I am in Korpus 2!--which is heavily decorated with party slogans, a huge bust of Lenin, exhibits of Lenin's life and of Soviet economic and scientific and social achievement, etc. The Red Square festivities were very dramatically presented and produced....Ben Bela was featured as the one important guest, and throughout the performance he stood beside Khrushchev, waving and smiling at the throngs. The Red Army Heroes of the Soviet Union were first formally greeted by the major Soviet general, then with martial music they marched off followed by a huge demonstration of Soviet military might, climaxed by mobile artillery, tanks, and finally rockets on special tanks and special rocket carriers; and to all this militant, boasting and threats to any enemies were poured forth by a ranking general. Then, suddenly, the May Day festival changed to festive youth, with the Young Pioneers performing a vast

demonstration of precision marching, figure formation, and choreography on Red Square to light music with extolling remarks about Soviet youth and their peaceful desires. This was the most moving and most inspiring sight, climaxed by youthful flower bearers mounting the steps, presenting flowers to Khrushchev and Ben Bela and then actually stepping in front of them on the viewing rostrum and waving to the crowd before them. This "inundation" by Soviet youth, with small girls and boys taking things quite over themselves, certainly had its expected effect. The vast mass of singing, marching, and dancing boys and girls, staged a stirring demonstration which completely filled the great Square; the Soviets set forth their face of dance, song, youth and fun. This was then crowned by a vast demonstration of song, folk music and folk dancing by costumed groups from various republics and ethnic groups which further amplified the atmosphere of friendship, dance, song, fun and peaceful zest for life which came so quickly and so compellingly upon the initial martial show of force and prowess that one could not help but wonder how such a vast singing and dancing child-conscious and youth-loving peoples be accused of aggressive militarism. The theme of peace predominated and youth was used to bring it home! The translator, apparently, behind Khrushchev and Ben Bela wiped his eyes, tears brought on by the emotion of the event; and Ben Bela was obviously much impressed and happy, waving joyfully to the people.

As at the International Cancer Congress, the Russians have gone out to show the world that they are not the ominous, sinister force that the western world makes of them, and that culture, music, dance and luxurious living in a peaceful world is really their goal, their full desire. Just how consistent this is with much of the drabness of private life in communist society is the major question, and it requires careful scrutiny of private life rather than of public display and pageant to draw conclusions.

No one seems to belittle the Sino-Soviet split, and Chumakov and Zhdanov themselves allude to it very seriously.

I find that my reservation to Stockholm tomorrow or Sunday is impossible, there being no flight. Thus, I may be forced to wait until Monday, and have the problem of visa prolongation. Furthermore, the chance of changing my route via Paris and getting home three or four days earlier looks small, since no travel, airline or ticketing offices are open today and we cannot manage any bookings or ticket changes. Thus I am left in immense uncertainty.

-----5 P.M.

Mikhail Petrovich, Peotr, Kostia, and Ilyusha all came to fetch me at noontime, after watching the May 1st parade on their television. Mikhail Petrovich searched and searched for me outside with the boys whom I spotted from my hotel window. He had been to the wrong room and the hotel desk as well as the floor clerk had both confirmed his error! We went together to the USSR Exhibition of Economic Achievement only to find that it was closed until two o'clock, when the boys had to start for home since their grandmother was there visiting. Thus we gave up and went into town to the Hotel Metropol where I tried to get some help on plane reservations, ticket change, etc. in order to book myself to Paris on the early morning flight tomorrow. No luck! Everything is hopelessly closed today! It thus appears that there is absolutely no way to get onto the morning Paris flight whether the flight is full or not for no office can handle the bookings; and, thus, I shall have to

await tomorrow morning and try what I can then. There is also no international air routes book available at either hotel travel office.

I wandered around Red Square watching the trucks, street sweepers, and small scrapers and truck loaders clear the heavy layer of sand that had been spread over the cobble stones for the great demonstration. The watering trucks rushed about the great plaza squirting the walkers who were crowding into the Square to Lenin's Tomb and the Kremlin Walls--both closed today. Within a few hours the whole Square had been cleaned, washed down, and all signs of the vast demonstration removed. Women street sweepers and shovelers were assisting the mechanized undertaking. The Square was crowded with Russians out for an afternoon walk, all well dressed and the former drabness of the USSR no longer reflected in their dress. Now many styles and colors of clothing are available. Street vendors of ice cream were doing a fine business. At Sverdlova Place there is a large photograph exhibit of news showing the Soviet-American basketball match, which, I gather, we lost (although it does not say so), showing "free Africa", and Khrushchev's 60th birthday celebration, and finally Soviet agricultural chemical development in spraying and fertilizers and terminated by an exhibit of dreadful sarcasm on the "free World", wherein starvation, unemployment, misery, and police violence are shown in the U.S.A. and also many also of civil rights demonstrations by Negroes. It is an exhibit of real photographs but one of dreadful distortion of fact and hopeless propaganda to a people who have little chance to see any of the other side of the story. With a camera I could make the very same pictures of "misery" here in Moscow, and the old unattended private village homes about the city, even in the city itself, would, if properly and similarly photographed and edited, make just as convincing a demonstration of inadequate living standards and misery. It is these distortions which particularly alarm one when here. However, it is also true that the West little credits the Soviets for all the song, dance, light hearted good spirit, and honest desire for peace which prevails here! Misunderstanding is directed both ways, and it is only unfortunate that such censorship as exists here further amplifies it.

I shall have plenty to keep me busy with museums and expositions and other touring of the city tomorrow and the following day if I must stay until then. I only dread the visa prolongation formalities and other such travel arrangements which can take up much of the day.

Marina Konstantinovna has telephoned to tell me that Ilyusha is on his way to my hotel room. I had planned with him the possibility of his being free this evening and visiting the exhibition with me. Mikhail Petrovich thought he would be tied up, but he has apparently managed to persuade his mother and I am expecting him. I am very pleased! He and Peotr received the first day stamp covers I sent them from the New Hebrides but I sent none to Kostia. Thus, I have now given Kostia one of the interesting Afghan knives made in Charikar which I have brought with me.

Mikhail Petrovich had some difficulty getting a cab for us; cab drivers do not want to drive us from the center of town from VDNK. He got very angry with them, and firmly sat in the cab beside the driver telling him quite emphatically that we intended to go to town in his cab. I had not expected his firm stand to gain any success, but it did! The driver took us to town and seemed quite satisfied to do so, having lost the argument. In America an



argument would have yielded a most belligerent and uncooperative driver. I was, furthermore, surprised and interested in Mikhail Petrovich's firm and authoritarian stand. He is by no means a timid, easily dissuaded person, but one used to demanding his own way; that is amply evident. With his sons too he is domineering; and, time and again, I notice now he rejects Ilyusha's or the other boys observations and suggestions. They have, none-the-less, the spirit to show their chagrin very mildly and to raise objections. I find Mikhail Petrovich a fine friend and wonderful host, but a complex and confusing person.

May 2, 1964...Moscow to Paris flight

I have made the flight, and after the usual anxieties of uncertainty and bureaucratic hold up. I found myself herded onto this Paris flight, my baggage checked through without customs inspection, my passport and ticket reissue attended to with extreme promptness, and now, I travel with a large tour group of Frenchmen who have visited the USSR for a week, I am flying over Riga bound for France! The Russian women working at Intourist were of no help whatsoever in finding air schedules or booking me on a new flight yesterday at both Hotel Ostankino and Hotel Metropol, but late in the evening when I was leaving to meet Ilyusha Chumakov at the USSR Exhibition, I stopped by to find a new young Russian girl at Hotel Ostankino Service Bureau. She promptly telephoned Sherimetevo airport and booked me on this Paris flight and told me to get there before 7 A.M. today, as I did, to change my ticket. All has worked out with great ease, and although passport control is reexecuted a second time at the point of boarding the plane, there were very little control procedures and money and customs declarations were accepted without question or any of actual inspection. I mailed letters to Roy Simmons, Mother, and to Su Min while I was waiting, and cards to Bobby, Mbagintao, Mark, and Dick Hornabrook. My Hotel bill was for only 2 1/2 days--inspite of three nights!--and I paid only 7.50 rubles, the only really cheap item in the Soviet Union today. Had I come in on regular tourist regulations with Intourist papers I would have paid much more!

After the anxiety of arranging departure and its sudden successful negotiation, I find myself with the usual migraine headache of relaxation! However, now that I am departed, I regret greatly not having the day and tomorrow with Ilyusha. He and I walked for about two hours through the Exhibition grounds but were too late to enter any of the exhibits. I then rode with him to the center of town on three subway changes, and finally left him. We can talk together in either Russian or English, his English being about as good as my Russian, but it seems we communicate as much without language as with and I sense that he enjoys being with me as I do with him. Thus, had I not made this flight out, I was to telephone him and we were to spend today and tomorrow together in Moscow. This is my great loss, but I shall not lose contact with Ilyusha. He is in the eighth grade but for his 14 1/2 years he is beyond most American schoolboys, now starting a special advanced biology program which puts him at the University faculty of biology several times weekly. He is also doing well in the Young Pioneers course in biochemistry, and he has read widely in science. His older brother, Mikhail Petrovich's older son by a previous marriage, I think, is finishing his physics doctorate at Dubno, where he is a nuclear physicist. Thus, the Chumakovs are like the Svedmyrs, with five highly achieving boys!

I have missed seeing Volodya even though I passed through Tashkent, and because of the need to really rush back to NIH, I have just missed seeing the Svedmyr boys. I may possibly see Elie and Odile and their children, however, if I remain in Paris for the day.

The French tourists are not overly impressed by Moscow and Leningrad, they having noted very clearly the difference between Soviet boasting and Soviet everyday life. They complain the prices are almost twice those in Paris, and note that the wages are very far below those of France. They are also most impressed by the ignorance of the ordinary Soviet citizen of life in Western Europe and abroad.

I told Ilyusha about the distortion of the exhibit on American and Western European life in the photograph exhibit at Sverlova Place, and he indicated that he knew this well. He told me that he and Kostia and Peotr had received the LIFE magazine books on the SEA, DESERT, and FOREST which I gave to Marina Konstantinovna for them in Washington over a year ago. I shall do what I can to send them other books. It has been wonderful to be again with the Chumakovs.

## A P P E N D I X



List of names of edible plants and animals as used in Agakamatasa, South Fore  
(and also in Purosa):

MUSHROOMS (edible): pusi

|        |          |              |
|--------|----------|--------------|
| sagu   | oba      | kanoriri     |
| pusi   | kwasa    | kararua      |
| kisora | kwatari  | amekwara     |
| katara | kupare   | toni         |
| magi   | kineri   | ezabuye      |
| tunda  | maboraia | arabuzi      |
| pakunu | iba ugua | pepesuasue   |
|        |          | yagwame pusi |

"LIMBUM" (edible): all wild

waio  
aginde  
mboi  
gimi (wood used for bows and arrows)

poisonous variety, confused with "aginde" or "mboi", and causing protracted  
intractable vomiting:

kataiya=miresa

BAMBOO (edible): planted in gardens

muga

WILD FRUITS OF VINES:

andau (inner pit is broken and its heart-meat eaten; outer flesh discarded)  
unu  
ndauwa

WILD FRUITS OF TREES:

kirona  
mbio  
kamata  
kise  
ikokiba  
yamu  
andi (multiple washings and fermentations to remove toxicity is used in  
preparation)

BERRIES:

kueiguwenta (red, found in old gardens, raspberry-like)  
tupuronumu (red, smaller than "kueiguwenta")

PANDANUS:

The "red" pandanus called mareta in Pidgin; and used to prepare a red paste or  
sauce after cooking

mana (mbana) (red, short)  
kavai (red, long)--rare in Purosa, common in Gimi only.

amara mbanta (yellow variety--not found here, only seen on Karamui patrol)

The hard-nut varieties in pineapple-like spines are clusters called garoka in  
Pidgin (eaten fresh or after smoking):

ina

## BREADFRUIT:

embo (both leaves and inner nut eaten, not flesh).

## SAGO:

ekata

## SNAKES: kura (all eaten in the past, not now--abandoned)

ana (large snake photographed at Misapi, brought by Gimi native)

imisara (snake in latrine at Misapi)

kurareba pakoi kura ason

ma (poisonous!--death adder)

yanagura (green)

agandai (python)

ai (python)

mo (mbo) (python)

andibara kura (red)

## LIZARDS: karu (eaten)

## SALAMANDERS: kararaba (eaten)

## FROGS AND TOADS: tako (eaten)

yanaraku (green--water--large)

kawekawenta (on bananas)

kuriri (toad, with "warts"--secretion released when held)

abai'a (in water-green)

wegima (in water-

wau'ura (huge, in water of Igi only...light green)

pukari (loud chirp in bush and kunai)

## CRAYFISH:

wagigaba (smaller)

wagiwagi (larger)

## EDIBLE INSECTS:

mirereia

ozorio

kwantabara

yakaruba

## EDIBLE SPIDER:

karaboni

## GRUBS:

goba (metamorphosis results in these stages: goba--> kiauwe--> aria)

## FISH: tari

wagani

andosabe

petawa

mando

pitaru

agugu

## "RAT": (all eaten)

kagu (house rat)  
 kare (gardens--burrows)  
 takwarema (bush)  
 uwomi ( " )  
 tave ( " )  
 turumuti ( " )  
 ande ( " )  
 asana ( " )  
 are (makes nests in pitpit)  
 aobare (bush)  
 pobu ( " )  
 yaguye ( " )

TREE-CLIMBING KANGAROO: sikkau in Pidgin  
 puesa

CUSCUS (possums)--kapul in Pidgin

kire  
 wanume  
 iga  
 aro  
 kei'o  
 igunta'bai  
 tumaba  
 duko  
 iyo  
 ware  
 ameigi  
 mara  
 pazo  
 kaneripo  
 amintora kuteri  
 arebo  
 kimaru (has spines, like Australian echidna)





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\*Limited distribution

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